Texas Emissions Reduction Plan (TERP)
REBATE GRANTS

Request for Grant Applications (RFGA)
Including Applications from Eligible Small Businesses
Fiscal Year (FY) 2017

Rebate Grants for Projects to Reduce Emissions of Oxides of Nitrogen (NO_x)
in the Air Quality Nonattainment Areas of Texas and Other Areas of Concern

Solicitation No. 582-17-70332

Eligible Counties:

- **Austin Area:** Bastrop, Caldwell, Hays, Travis, and Williamson Counties
- **Beaumont-Port Arthur Area:** Hardin, Jefferson, and Orange Counties
- **Corpus Christi Area:** Nueces and San Patricio Counties
- **Dallas-Fort Worth Area:** Collin, Dallas, Denton, Ellis, Henderson, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties
- **El Paso Area:** El Paso County
- **Houston-Galveston-Brazoria Area:** Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties
- **San Antonio Area:** Bexar, Comal, Guadalupe, and Wilson Counties
- **Tyler-Longview Area:** Gregg, Harrison, Rusk, Smith, and Upshur Counties
- **Victoria Area:** Victoria County

Texas Commission on Environmental Quality (TCEQ)
Air Quality Division
Implementation Grants Section, MC-204
P.O. Box 13087
Austin, Texas 78711-3087

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Applications will be accepted for consideration during this grant period on a first-come, first-served basis at the front desk, Rm. 1301, 1st floor of Building F on the premises of the TCEQ, no later than 5:00 p.m., Central Time, on May 26, 2017. Applications received in the TCEQ mail room on that date are not guaranteed to be delivered to Rm. 1301 by the required deadline, so applicants are encouraged to plan their submission date accordingly. In addition, the award of a rebate grant is dependent upon the availability of funding and the TCEQ may suspend acceptance of applications prior to this closing date.

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Texas Commission on Environmental Quality (TCEQ)
Request for Grant Applications (RFGA)
Including Applications from Eligible Small Businesses
Fiscal Year (FY) 2017

1.0 INVITATION

The Texas Commission on Environmental Quality (TCEQ) invites applications from persons who operate or plan to operate on-road heavy-duty vehicles and selected types of non-road diesel equipment in the nonattainment areas of Texas and other areas of concern for ozone. Incentive funding is available for activities that will reduce the emission of nitrogen oxides (NO_X) in designated eligible counties. NO_X is usually a byproduct of high-temperature combustion. Everyday functions, like driving a motor vehicle or operating heavy equipment, contribute to the creation of NO_X. NO_X reacts with volatile organic compounds (VOCs) in the presence of sunlight to form harmful ground-level ozone.

A portion of the funding allocated to the Rebate Grants Program will be set aside for applications from entities that qualify as a Small Business under the Texas Emissions Reduction Plan (TERP) Guidelines for the Emissions Reduction Incentive Grants (RG-388), hereafter referred to as the Guidelines, as further explained in this document.

1.1 PURPOSE

This Rebate Grants Program is to implement a portion of the TERP as authorized under Section 386.117, Texas Health and Safety Code (THSC), related to implementation of a Rebate Grants Program and Section 386.116, THSC, related to Small Business Incentives. The TCEQ has adopted rules to implement this program under 30 Texas Administrative Code (TAC) Chapter 114, Subchapter K. The TCEQ has also adopted the Guidelines which contain more specific standards governing this program.

1.2 TERP GOALS

The goals of the TERP are to:

a) assure that air in this state is safe to breathe and meets minimum federal standards established under the federal Clean Air Act (42 U.S.C. Section 7407);

b) develop multi-pollutant approaches to solving the state's environmental problems; and

To implement the TERP, the Rebate Grants Program will provide rebate grants for eligible activities to offset the incremental costs of projects that reduce emissions of NO_X from high-emitting internal combustion diesel engines in eligible areas.

1.3 PROGRAM GUIDELINES

The Guidelines, grant application forms, an example contract, and a copy of this Request for Grant Applications (RFGA) may be viewed and downloaded from the TCEQ Web site at <www.terpgrants.org>. The materials may also be obtained by calling TERP staff at 1-800-919-TERP (8377).

To be eligible for funding consideration, grant applications must be prepared and submitted in accordance with this notice and the Guidelines.

1.4 ELIGIBLE APPLICANTS AND AREAS

(Refer to Chapter 6 of the Guidelines.)

General eligibility requirements under the TERP grant programs are contained in Chapter 6 of the Guidelines. Persons who operate or plan to operate on-road heavy-duty vehicles or non-road equipment in the eligible counties as designated below are eligible to apply for a rebate grant:

a) Eligible applicants include individuals, corporations, organizations, governments or governmental subdivisions or agencies, business trusts, partnerships, associations, or any other legal entity. This may include a corporation headquartered outside of the state of Texas, but which operates equipment or vehicles primarily in an eligible county in Texas.

b) Businesses or other entities in which a TCEQ employee, spouse, or family member of a TCEQ employee has a direct or indirect interest, financial or otherwise, may be prohibited from receiving a grant, depending upon the nature of the interest. Any questions regarding the eligibility of an entity to apply for a grant should be referred to the TERP staff early in the application process.

c) This RFGA does not apply to entities intending to serve as a third party for the funding, whereby the grant funding and/or cost savings resulting from the funding will be passed through to the owners or operators of the vehicles or equipment.

d) For this grant funding period, the eligible counties (grouped by area) include:

- **Austin Area:** Bastrop, Caldwell, Hays, Travis, and Williamson Counties
- **Beaumont-Port Arthur Area:** Hardin, Jefferson, and Orange Counties
- **Corpus Christi Area:** Nueces and San Patricio Counties
- **Dallas-Fort Worth Area:** Collin, Dallas, Denton, Ellis, Henderson, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties
- **El Paso Area:** El Paso County
- **Houston-Galveston-Brazoria Area:** Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties
- **San Antonio Area:** Bexar, Comal, Guadalupe, and Wilson Counties
- **Tyler-Longview Area:** Gregg, Harrison, Rusk, Smith, and Upshur Counties
- **Victoria Area:** Victoria County

e) The applicant must commit to use the grant-funded vehicle or equipment at least 75% of the annual mileage or hours in the eligible counties that the applicant designates in the application.

f) Entities meeting the definition of a small business, as explained below, may be eligible for special consideration for funding set aside specifically for applications from small businesses. The application forms include a section for applicants to certify that the applicant meets the small business definition. Under this program, a small business is defined as a person who:

   1) owns and operates not more than two vehicles or pieces of equipment, one of which is:

      a) an on-road diesel heavy-duty vehicle with a pre-1994 engine model; or
      b) a non-road diesel-powered piece of equipment with an engine with uncontrolled emissions; and

   2) has owned the vehicle or equipment described under (1)(a) or (b) above for more than one year. (However, note under the program criteria for a replacement project, the applicant must have owned the vehicle or equipment for at least two years.)

g) The small business option will be available for the replacement or repower of an on-road heavy-duty vehicle with a currently-installed engine that is a pre-1994 model year and the replacement or repower of non-road equipment with a currently-installed engine with uncontrolled emissions. The manufacture years for uncontrolled non-road engines, according to horsepower, are listed below:

Horsepower	Year
25-99	Pre-1998
100-174	Pre-1997
175-749	Pre-1996

1.5 ELIGIBLE ACTIVITIES, COSTS, AND REBATE GRANT AMOUNTS

General information and criteria on eligible activities are available in the Guidelines. This RFGA also contains additional requirements that apply to this application period. Potential applicants should review this RFGA and the Guidelines to determine if a proposed project is eligible.

Activities eligible for a rebate grant are intended to reduce NO_X emissions in the designated eligible counties from on-road heavy-duty diesel vehicles and non-road diesel equipment. The tables contained in the appendices to this document list the on-road vehicle weight categories and model years and the non-road equipment types, horsepower ranges, and model years eligible for funding. These tables also show the pre-approved maximum rebate grant amounts for eligible on-road and non-road replacement and repower projects.

The TCEQ may waive certain eligibility requirements on a finding of good cause. Waiver request procedures are explained in detail in Appendix G of this RFGA. Applicants may apply for a waiver before or at the time the application is submitted. If a waiver request is submitted after the application is received, the TCEQ may consider the date of receipt of the waiver request as the application receipt date.

Applications will not be accepted for an activity that was included in a project previously awarded a TERP grant and that was subsequently canceled by the grant recipient after the date of issuance of this RFGA.

An applicant must choose an Activity Life of either 5 or 7 years. Maximum rebate grant amount tables are provided for both a 5-year and 7-year Activity Life. The table corresponding to the Activity Life chosen by the applicant must be used to determine the grant amount.

Different on-road vehicle tables are provided for each weight category based on the selected Activity Life. Non-road tables are provided for each type of equipment based on the selected Activity Life. These tables show the maximum funding amounts for projects in the eligible counties. The applicant must use the table applicable to the weight category of the vehicle or the horsepower and type of non-road equipment, and the Activity Life chosen. These tables will also be made available for viewing or download on the TERP web site at <www.terpgrants.org> or by calling the TERP toll free number at 800-919-TERP (8377).

For On-Road Heavy-Duty Replacement activities only, if the grantee has chosen the 5-year Activity Life option and operates the vehicle 400,000 miles prior to the expiration of the 5-year Activity Life, the Activity Life may be considered met early. Grantees who wish to close out their contracts under this provision must notify the TCEQ in writing.

Activities that may be eligible under this program are outlined below. Vehicles and equipment used primarily for competition or recreational purposes are not eligible for funding under any of the project categories.

1.5.1 On-Road Heavy-Duty Diesel Vehicles

On-road heavy-duty diesel vehicles consistent with the weight categories in the appendices are eligible for rebate grants under this program. There are specific requirements for the replacement or repower of on-road heavy-duty vehicles. Listed below is a summary of eligible activities. For additional information, please refer to the Guidelines.

1) **Replacement of On-Road Heavy-Duty Diesel Vehicles**

(Refer to Appendix 1 of the Guidelines.)

This category is for the replacement of an on-road heavy-duty diesel vehicle with a newer on-road heavy-duty vehicle powered by diesel, natural gas, propane, or electricity. **The model year of the engine installed on the replacement vehicle must be 2014 or newer.** For this category, the applicant must be replacing a vehicle with a remaining useful life consistent with the Activity Life chosen. The baseline for comparison of emissions is the difference between the emissions of the vehicle being replaced and the emissions of the vehicle being purchased.

The replacement vehicle must be certified to emit at least 25% less NO_X than the vehicle being replaced. Certification means approved by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), or otherwise accepted by the TCEQ.

The replacement vehicle must be of the same type, body and axle configuration, and weight category as the vehicle being replaced. Regardless of the configuration of the vehicle being replaced, TCEQ will not accept dump trucks with sleeper cabs. Class 8B trucks and dump trucks that normally operate in combination with a trailer should use the gross combined weight rating (GCWR) for determining the weight range or category. However, if a trailer is attached occasionally, only the weight of the vehicle should be used.

The replacement vehicle must be configured and intended for use in the same application or vocation (for example, regional delivery) as the vehicle being replaced. The TCEQ may accept, case-by-case, vehicles of a different type, body and axle configuration, or weight category, to account for the latest technology used for a specific vocation. Diesel, natural gas, propane, and electric vehicles are allowed as replacements for diesel vehicles under the program.

The GVWR listed for the vehicle may not exceed the maximum weight allowed by the Texas Department of Transportation (TxDOT), as listed on the Permissible Weight Table. In general, the maximum weight listed for the vehicle may not exceed 20,000 lbs. per axle.

The Gross Combined Weight Rating (GCWR) of the vehicle and trailer may be used for haul trucks or similar trucks that permanently operate in combination with a trailer and dump trucks that permanently pull a pup trailer. Equipment trailers pulled by a dump truck are not considered pup trailers. Check with the TCEQ if you are not sure whether your vehicle and trailer combination meet these conditions.

For a replacement project, the TCEQ will evaluate whether the vehicle being replaced would have otherwise been used in the eligible counties for the period within which the emission reductions will be claimed. Standards that apply are listed below:

- The applicant must have continuously owned, commercially financed, or leased the vehicle and have been listed as the owner on the title or the lessee on the lease agreement for a minimum of two years immediately preceding the submission of the grant application.
- The vehicle must currently be registered for operation in Texas in the applicant's name, unless the vehicles vocational type is exempt from registration requirements.
- Unless otherwise approved by the TCEQ, the vehicle must have been continuously registered and operated for at least 75% of its annual use in Texas for at least two years immediately preceding the application date. If the vehicle has apportioned registration, annual usage summaries will be required with the application.
- The vehicle must be in good operating condition and capable of performing the primary function of the vehicle.
- The vehicle must have a current safety inspection sticker (if a safety inspection is required for that vehicle and use) and must have continuously had an up-to-date safety inspection over the preceding two years.

Applicants must provide documentation with the application to show compliance with the ownership or lease and registration requirements, including a copy of the vehicle title or lease agreement for the two years immediately preceding the submission of the grant application. To verify at least 75% of annual usage in Texas, applicants with apportioned vehicles will be required to submit annual usage summaries that include accurate dates and miles driven in each registered state. Acceptable usage documentation may include Individual Vehicle Distance Records (IVDR) required under the International Registration Plan (IRP), and other similar travel records. The applicant must also have the authority to dispose of the vehicle being replaced.

The TCEQ may waive the two-year ownership, lease, or registration requirements, as well as other eligibility requirements, on a case-by-case basis. Procedures for submitting an eligibility waiver request are included in Appendix G.

Eligible Costs

The grant recipient may be eligible for reimbursement of up to 80% of the eligible incremental costs associated with the purchase or lease of the replacement vehicle, not to exceed the maximum rebate grant amount established by the TCEQ for that activity. The incremental cost is the cost to purchase the replacement vehicle minus the scrap value of the vehicle being replaced. The TCEQ may establish a default scrap value in the application forms. Eligible costs are listed below:

- **Capital Costs - Equipment.** Invoice cost or cash basis for the lease costs of the vehicle, including taxes, duty, protective in transit insurance, and freight charges.
- **Other - Global Positioning System (GPS).** The costs to purchase and install a GPS to track and log the location and use of the vehicle may be included in the incremental costs. Ongoing operational and maintenance charges may not be included. The GPS system must be purchased from the vendor authorized by and contracted with the TCEQ to provide the system.

2) **Repower of On-Road Heavy-Duty Diesel Vehicles**

(Refer to Appendix 1 of the Guidelines.)

This category is for the replacement (repower) of an existing diesel engine on an on-road heavy-duty vehicle with a new, rebuilt, or remanufactured diesel engine. The replacement engines may also be a natural gas or propane engine certified to current federal emissions standards.

The engine must be certified to emit 25% less NO_X than the engine being replaced, based on the federal standard for that engine. Certification means approved by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), or otherwise accepted by the TCEQ.

Repowers resulting in any alteration from an original configuration of a vehicle or engine must comply with the provisions of EPA Memorandum 1A (Memo 1A), related to ensuring that altered vehicles and engines continue to meet required emission standards.

The applicant must own the vehicle and be listed as the owner of the vehicle on the vehicle title.

Eligible Costs

The grant recipient may be eligible for reimbursement of up to 80% of the incremental cost of the purchase and installation of the replacement engine, not to exceed the maximum rebate grant amount established by the TCEQ for that activity. The incremental cost is the cost to purchase and install the replacement engine and associated equipment, minus the scrap value. Eligible costs are listed below:

- **Capital Costs – Equipment and Installation.**
    - Invoice cost of the new engine, including taxes, duty, protective in-transit insurance, and freight charges.
    - Invoice cost of additional equipment with a per unit acquisition cost of $5,000 or more and that is necessary for the completion of the repower project.
    - Installation costs, including the cost to remove and dispose of the old engine, if needed. Installation costs may include costs to re-engineer the vehicle for the new engine to fit. Technical design, testing, and other engineering services required as part of the installation work should also be listed under this subcategory.
    - Miscellaneous Supplies. Invoice cost of equipment and materials not included as part of the engine with an acquisition cost of less than $5,000 that are necessary for the repower of the vehicle.
- **Other – Global Positioning System (GPS).** The costs to purchase and install a GPS to track and log the location and use of the vehicle may be included in the incremental costs. Ongoing operational and maintenance charges may not be included. The GPS must be purchased from the vendor authorized by and contracted with the TCEQ to provide the system.

1.5.2 Non-Road Diesel Equipment

Non-road diesel equipment consistent with the equipment types, horsepower ranges, and model years listed in the appendices are eligible for rebate grants under this program.

For replacement and repower projects, the non-road equipment being replaced must be powered by a diesel engine 25 horsepower (hp) or greater to be eligible under this program. This requirement refers to the horsepower of the engine being replaced only, and does not apply to the replacement engine or technology.

The maximum rebate grant amounts listed in the Appendices are categorized by the eligible horsepower ranges. Non-road equipment with engines 750 horsepower or greater are not eligible under the Rebate Grants Program. Equipment with these engines may still be eligible under other TERP grant programs.

There are specific requirements for the replacement or repower of non-road equipment. Listed below is a summary of eligible activities. For additional information, please also refer to the Guidelines.

1) **Replacement of Non-Road Diesel Equipment**

(Refer to Appendix 2 of the Guidelines.)

This category is for the replacement of a non-road heavy-duty diesel vehicle or piece of equipment with a newer on-road heavy-duty vehicle or piece of equipment powered by diesel, natural gas, propane, or electricity. **The manufacture year of the engine installed on the replacement equipment must be 2014 or newer.** For this category, the applicant must replace a piece of equipment with a remaining useful life consistent with the Activity Life selected. The baseline for comparison of emissions is the difference between the emissions of the equipment being replaced and the emissions of the equipment being purchased.

The engine on the replacement equipment must be certified to emit at least 25% less NO_X than the engine being replaced. Certification means approved by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), or otherwise accepted by the TCEQ.

The replacement equipment must be of the same equipment type and intended for the same or similar purpose as the equipment being replaced. The TCEQ may allow, at its discretion, an applicant to apply for a project involving the replacement of a terminal tractor with an on-road engine under the non-road criteria. This provision does not include any on-road vehicle not designed and manufactured as a terminal tractor, even if the vehicle is being used in that role.

For a replacement project, the TCEQ will evaluate whether the equipment being replaced would have otherwise been used in the eligible counties for the period within which the emission reductions will be claimed. Standards that apply include:

- The applicant must have continuously owned the equipment for a minimum of two years immediately preceding the grant application period.
- Unless otherwise approved by the TCEQ, the equipment must have been continuously located and used in Texas for at least 75% of its annual use for the two years preceding the grant application period.
- The equipment must be in good operating condition at the time the application is submitted.

The TCEQ may waive the two-year ownership requirement, as well as other eligibility requirements, on a case-by-case basis. Procedures for submitting an eligibility waiver request can be found in Appendix G.

Eligible Costs

The grant recipient may be eligible for reimbursement of up to 80% of the eligible incremental costs associated with the purchase or lease of the replacement equipment, not to exceed the maximum rebate grant amount established by the TCEQ for that activity. The incremental cost is the cost to purchase the replacement equipment minus the scrap value of the equipment being replaced. The TCEQ may establish a default scrap value in the application forms. Eligible costs are listed below:

- **Capital Costs - Equipment**. Invoice cost or cash basis for the lease costs of the equipment, including taxes, duty, protective in transit insurance, and freight charges. Costs should not include the cost of non-permanent attachments to the equipment that are not directly related to the primary purpose of the equipment. For example, the cost of a bucket for an excavator may be included, but the cost of an optional loader bucket on an agricultural tractor should not be included.
- **Other - Global Positioning System (GPS).** The costs to purchase and install a GPS to track and log the location and use of the equipment may be included in the incremental costs. Ongoing operational and maintenance charges may not be included. The GPS must be purchased from the vendor authorized by and contracted with the TCEQ to provide the system.

2) **Repower of Non-Road Diesel Equipment**

(Refer to Appendix 2 of the Guidelines.)

This category is for the replacement (repower) of an existing diesel engine on a non-road piece of equipment with a new, rebuilt, or remanufactured diesel engine.

The engine must be certified to emit at least 25% less NO_X than the engine being replaced. Certification means approved by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), or otherwise accepted by the TCEQ.

Subject to approval of the TCEQ, a non-road engine emissions upgrade rebuild kit verified by the EPA or CARB to result in a reduction in NO_X emissions of at least 25% may be considered a repower. The upgrade system must be installed in accordance with the specifications of the EPA or CARB verification and in accordance with the system manufacturer's requirements. A label or other identification markings must be affixed to the upgraded engine signifying that the kit has been installed and indicating the emissions rate or percentage reduction in emissions from the original baseline engine to which the upgraded engine is now verified.

Eligible rebuilt or remanufactured engines must use original engine manufacturer (OEM) components only and be purchased from the OEM or its authorized dealers/distributors. The TCEQ may accept engines provided by other entities not connected with the OEM, subject to a case-by-case determination.

The applicant must own the equipment being repowered.

Eligible Costs

The grant recipient may be eligible for reimbursement of up to 80% of the incremental cost of the purchase and installation of the replacement engine, not to exceed the maximum rebate grant amount established by the TCEQ for that activity. The incremental cost is the cost to purchase and install the replacement engine and associated equipment, minus the scrap value or, if approved by the TCEQ, the trade-in value of the old engine. Eligible costs are listed below:

- **Capital Costs – Equipment and Installation.**
    - Invoice cost of the new engine, including taxes, duty, protective in-transit insurance, and freight charges.
    - Invoice cost of additional equipment with a per unit acquisition cost of $5,000 or more and that is necessary for the completion of the repower project.

- Installation costs, including the cost to remove and dispose of the old engine, if needed. Installation costs may include costs to re-engineer the equipment for the new engine to fit. Technical design, testing, and other engineering services required as part of the installation work should also be listed under this subcategory.
- Invoice cost of miscellaneous supplies, including materials not included as part of the engine with an acquisition cost of less than $5,000 that are necessary for the repower of the vehicle.

- **Other – Global Positioning System (GPS).** The costs to purchase and install a GPS to track and log the location and use of the equipment may be included in the incremental costs. Ongoing operational and maintenance charges may not be included. The GPS must be purchased from the vendor authorized by and contracted with the TCEQ to provide the system.

1.6 ADDITIONAL REQUIREMENTS

Additional criteria that apply to activities funded under this program are discussed below:

a) Only one activity may be included in a rebate grant application. An individual or entity may receive no more than ten (10) rebate grants for different activities during this application period.

b) If applying as an individual or sole proprietor, a photocopy of a state or federal identification card must be included in the application (i.e. driver's license).

c) An applicant may apply for the same project under this RFGA and an RFGA under a separate TERP grant program; however, the applicant MUST indicate that fact on the application form. If an eligible application for a particular project is not selected for funding under another TERP grant program, then the applicant may be considered for funding under this RFGA.

d) The grant contract will include the requirements for the method of destruction (disposition) of the vehicle and engine being replaced. Grantees will need to have legal authority for this disposition. In general, unless an alternative destruction method is approved by the TCEQ, the old vehicle/equipment and engine must be rendered permanently inoperable within 90 days of receiving financial reimbursement by completely crushing the vehicle/equipment and engine or putting a 3” hole or larger in the engine block on both sides (or otherwise destroying it) and cutting both frame rails in half (or perform other structural damage to the equipment) rendering it inoperable. A certification of the disposition of the old vehicle/equipment and engine must be provided on forms provided by the TCEQ. The grant contract will include specific provisions for scrapping the vehicles/equipment and engines and for submitting disposition verification information to the TCEQ.

e) Applicants must submit a copy of a Texas Nonrepairable Vehicle Title issued by the Texas Department of Motor Vehicles (TxDMV) for the vehicle(s) replaced under a grant contract. The Texas Nonrepairable Vehicle Title must be submitted at the same time that the required disposition documentation is submitted to the TCEQ. This title is available by submitting a completed form VTR-441 along with the required fee to the TxDMV.

f) The cost per ton of NO_X reduced of the project may not exceed $12,500. The cost per ton factor was used by the TCEQ in the calculations of the maximum rebate grant amounts listed in the appendices.

g) The grant may only reimburse up to 80% of the eligible incremental costs of a replacement or repower project. The requirement applies, regardless of the maximum rebate grant amount set for that type of project.

h) Applicants must agree to monitor the use of the grant-funded vehicles or equipment, and to report semi-annually to the TCEQ for the life of each grant-funded activity. The minimum Activity Life for projects submitted under this RFGA is 5 years.

i) Applicants must agree to notify the TCEQ of any termination of use, change in use, sale, transfer, or accidental or intentional destruction of grant-funded vehicles or equipment, or change in use of the qualifying fuel, during the life of each activity.

j) An activity is not eligible if it is required by any state or federal law, rule, regulation, memorandum of agreement, or other legally binding document. However, this restriction does not apply to an otherwise qualified activity regardless of the fact that the state implementation plan assumes that the change in equipment, vehicles, or operations will occur if on the date the grant is awarded the change is not required by any state or federal law, rule, regulation, memorandum of agreement, or other legally binding document. This restriction also does not apply to the purchase of vehicles or equipment that is required only by local law or regulation or by corporate or controlling board policy of a public or private entity.

k) An activity involving a new emission reduction measure that would otherwise generate marketable credits under state or federal emissions reduction credit averaging, banking, or trading programs is not eligible for funding under this program unless:

- the activity includes the transfer of the reductions that would otherwise be marketable credits to the state implementation plan or the owner or operator as provided under Section 386.056, Texas Health and Safety Code; and
- the reductions are permanently retired.

l) The incremental cost of the proposed activity must be reduced by the value of any existing financial incentive that directly reduces the cost of the proposed activity, including tax credits or deductions, other grants, or any other public financial assistance.

m) All applications for funding must be completed according to the application instructions and submitted within the required deadline. Instructions for completing an application are found in Appendix H of this RFGA.

n) In general, repower activities included under a grant project application may have already been started prior to the awarding of a grant. However, expenses to be reimbursed under a repower grant may not have been incurred prior to 12 months before the deadline for application submission. For replacement projects, the applicant must have owned the equipment or owned or leased the vehicle for the two years preceding the submission date of the application. The vehicle or equipment must have been operated for at least 75% of its annual use in Texas for the two preceding years. The applicant must certify in the application forms that the applicant would have otherwise continued to use the vehicle or equipment in the eligible counties if the grant were not available. Also, unless otherwise approved by the TCEQ, the vehicle or equipment being purchased may not have been acquired before the start of the grant application period.

o) Application forms will require one primary price quote and additional price quotes for comparison, according to the options listed in the application forms. Grant recipients will be responsible for soliciting the best purchase price and all costs covered by the grant and/or used as the cost basis for determining the grant amount must be reasonable. Price quote guidelines are provided in appendix I of this RFGA.

p) Administrative costs and other internal costs to the grant recipient, including but not limited to personnel expenses, internal salaries, indirect costs, and travel will not be eligible for reimbursement. This restriction also applies to situations where the grant recipient acts as the freight/delivery provider for delivery of the grant-funded vehicle or equipment before or after acceptance of the vehicle or equipment.

q) If the costs for the purchase and installation of a TCEQ-approved Global Positioning System (GPS) are included in the grant, the grant recipient must agree to pay for any required ongoing operational costs of using the GPS, including the reporting system provided by the vendor, for the Activity Life. Failure to maintain and use the GPS may result in a requirement to return any grant funds used to pay for all or part of the purchase and installation of the GPS.

r) Consultant fees for the preparation of a grant application and administering the grant, either directly or as an addition to the cost basis of the grant-funded vehicle, equipment, or engine by the vendor or installer will be considered administrative costs and are not eligible as an addition to the cost basis of the vehicle or equipment.

s) Fees for a third-party consultant hired by the grant recipient to manage and administer the grant-funded activities, including coordination of the work and submission of reports and paperwork to the TCEQ for the grant recipient will be considered administrative costs and are not eligible for reimbursement. This determination is not intended to limit the ability of the vehicle or equipment vendor or engine installer to include reasonable and necessary costs for overseeing the work to be performed in the price of the vehicle, equipment, engine, and/or installation services.

t) Under Section 231.006, Texas Family Code, a child support obligor who is more than 30 days delinquent in paying child support and a business entity in which the obligor is a sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25% who is more than 30 days delinquent in paying child support is not eligible to receive a state-funded grant or loan. All business entities applying for a grant under this RFGA must include in the application the name and social security number of the individual or sole proprietor and each partner, shareholder, or owner with an ownership interest of at least 25% of the business entity submitting the application. The certifying official submitting the application must also certify in the application that the individual or business entity named in the application is not ineligible to receive the grant and acknowledges that the grant contract may be terminated and payment may be withheld if the certification is inaccurate.

u) Applicants must submit a W-9 Form (Request for Taxpayer Identification Number and Certification Form) when submitting the application.

1.7 GRANT ADMINISTRATION AND REIMBURSEMENT OF EXPENSES

a) Except as provided for under Section c. below, payments will be made on a reimbursement basis for eligible expenses incurred and paid by the grant recipient. A cost may not be considered incurred until the grant-funded goods and services have been received and accepted by the grant recipient. The applicant may submit the request for reimbursement when the purchases are completed. Grant recipients must provide documentation to show that equipment or services have been received and the expenses have been incurred and paid by the grant recipient before reimbursement is provided by the TCEQ.

b) Subject to approval by the TCEQ, the grant recipient may assign the payments due from the TCEQ directly to the supplier, subcontractor, financing or leasing company, or other entity from which the goods or services were procured, leased, or financed by the grant recipient. A properly completed Assignment Information Form and the completed Assignment section on Form 1, must be completed and submitted with the Request for Reimbursement form. Under this option, the goods and services included under a cost must have been received and accepted by the grant recipient, and the grant recipient must have an obligation to pay the expense.

c) A summary of all expenses and budget items must be submitted with the request for reimbursement. Request for Reimbursement forms will be provided with the copy of the executed contract. These forms are also available on the TERP web site at <www.terpgrants.org> or by calling the toll free TERP number at (800) 919-TERP (8377).

d) For replacement projects, the scrap value is considered a cost of performing the Grant Activities and as such must be reasonable. To be considered reasonable, the value received for the equipment or engine being replaced must be the result of arms-length bargaining with the entity taking the old vehicle or equipment. The remuneration received and reported to the TCEQ must reflect the actual reasonable scrap value of the old vehicle or equipment. A grant recipient may be required to list on the financial reporting forms any money or in-kind value received in exchange for the scrapped equipment or engine including, but not limited to, cash, goods, services (including the services provided by a consultant to assist in preparing and/or submitting a grant application), gifts, intangibles, discounts, or any other items of value. For on-road vehicle and non-road equipment replacement projects, the TCEQ may use a default scrap value of $1,000, in lieu of the grant recipient reporting the actual remuneration received. For on-road and non-road repower projects the TCEQ may use a default scrap value of $200.

e) Unless otherwise approved by the TCEQ, all project costs must have been incurred and grant-funded equipment or vehicles received before the end of the Period of Funds Availability indicated in Article 4 of the contract. All final requests for reimbursement will need to be submitted within 45 days after this date.

f) For any grant activity where the grant-funded vehicle or equipment will be acquired and used under a lease or lease-purchase agreement, the period of the lease agreement must extend for at least the Activity Life or, if the lease terminates before the end of the Activity Life, the lease agreement must include a binding commitment for the grant recipient to pay any remaining costs and to take ownership of and title to the vehicle or equipment. An option to buy at the end of the lease term, without a binding commitment on the part of the grant recipient, will not be sufficient to satisfy this provision.

1.8 MONITORING AND REPORTING

a) An applicant must choose in the application form an Activity Life of either 5 or 7 years. The maximum rebate grant amount table corresponding to the Activity Life chosen must be used to determine the grant amount. The Activity Life is the period of time (in years) used to calculate the amount of NO_X emissions reductions that will be achieved through the use of the grant-funded vehicle or equipment.

b) The beginning and ending dates for the life of each grant-funded activity will be established by the TCEQ. For replacement and repower activities, the beginning of the Activity Life will normally be set on the date that the report verifying that the vehicle, equipment, and/or engine being replaced has been properly disposed of is approved by the TCEQ.

c) Semi-annual reports on the use of the grant-funded vehicle or equipment will be required, using forms to be provided by the TCEQ. If the grant recipient installs a global positioning system (GPS) from the TCEQ-authorized GPS contractor, either as part of the grant or with other funds, the TCEQ may accept the reports available from the GPS service provider in lieu of the grant recipient submitting semi-annual usage reports.

d) The TCEQ may provide the grant recipient with a label to place on grant-funded vehicles and equipment to aid both the TCEQ and the grant recipient in tracking and identification of those vehicles and pieces of equipment. The grant recipient must agree to place the label on the grant-funded vehicles or equipment.

e) The TCEQ has identified an approved vendor for a geographic positioning system (GPS) to electronically track the location and use of grant-funded vehicles and equipment. Initial installation of a GPS is voluntary. However, during the Activity Life of the grant, the TCEQ may require installation of a GPS for grant recipients that are not meeting the grant requirements pertaining to usage or location of use, in lieu of requiring immediate return of grant funds. In those cases of non-compliance, the grant recipient must agree to install and use the approved GPS if requested to do so by the TCEQ or the grant recipient may be required to return all or a portion of the grant funds.

1.9 FUNDING

a) The total amount to be awarded under this grant program will depend upon the amount of revenue received into the TERP account. Up to $5 million will be set aside for projects from applicants qualifying as a small business. However, the TCEQ will not be obligated to fund projects up to these amounts and may adjust or exceed these amounts without an amendment to this notice.

b) To assist applicants in determining whether sufficient funds will be available to cover their application, the TCEQ will post updates on the TERP web site <www.terpgrants.org> regarding the amount of unobligated funds that remain available for rebate grants and for small business applicants. Information will also be available by calling the TERP toll free number at (800) 919-TERP (8377).

c) The TCEQ will not be obligated to select applications for funding, even if received within the application deadline.

d) TCEQ may select parts of a proposal for funding and may offer to fund less than the dollar amount requested in a proposal.

2.0 APPLICATION PROCESS

a) **Required Forms.** Application forms may be viewed and downloaded from the TERP web site at <www.terpgrants.org>. Copies of the forms may also be obtained by calling the TERP toll free number at (800) 919-TERP (8377).

b) **Application Submission.** To apply for funding, applicants must complete and submit a grant application Form TCEQ 20332 and either Form TCEQ 20332(a) - Replacement or Form TCEQ 20332(b) - Repower. Instructions for completing the forms can be found in Appendix H of this RFGA. Two copies of the completed and signed forms should be submitted to:

Regular Mail:
Texas Commission on Environmental Quality
Air Quality Division
Implementation Grants Section (REBATE), MC-204
P.O. Box 13087
Austin, TX 78711-3087

Express Mail:
Texas Commission on Environmental Quality
Air Quality Planning Division
Implementation Grants Section (REBATE), MC-204
12100 Park 35 Circle
Austin, TX 78753

c) **Deadline for Submission.** Applications will be accepted and considered on a first-come-first-served basis during this grant period. The TCEQ may suspend acceptance and/or processing of applications at any time during the application period with no obligation to continue processing an otherwise eligible application received within the deadline. Unless the acceptance of applications is suspended by the TCEQ prior to the application deadline, applications must be received at the front desk, Rm. 1301, 1st floor of Building F on the premises of the TCEQ by no later than 5:00 p.m., Central Time, May 26, 2017. Applications received in the TCEQ mail room on May 26, 2017 are not guaranteed to be delivered to Rm. 1301 by the required deadline, so applicants are encouraged to plan their submission date accordingly.

d) **Use of Consultants.** Private consultants may be available to assist an applicant to complete and submit an application. These consultants do not represent the TCEQ, and the TCEQ neither encourages nor discourages the use of a consultant to assist with the application process. The TCEQ has no agreement with any consultant that applications submitted by a particular consultant will receive more favorable treatment than other applications. As noted under the requirements of Section 1.6, any fees charged by a consultant are the responsibility of the applicant or the vendor and may not be charged to the grant, either directly or as an addition to the cost basis of the grant-funded vehicle or equipment. Also, all purchase decisions must be based on sound business practices and arm's length bargaining. It is generally considered acceptable for an applicant to accept assistance from a vendor or an agent of a vendor in preparing an application, as long as any decision by the applicant to purchase the grant-funded vehicle or equipment from that vendor is made independently and meets the other reasonableness provisions in the grant contract. However, if the consultant is paid directly by the applicant to complete the application documents and to act as the applicants agent for the grants process, purchases of grant-funded vehicles or equipment from a company in which the consultant has an interest would not normally be considered appropriate by the TCEQ under the reasonableness requirements of the grant contract. Contact the TERP staff with any questions.

e) The applicant must indicate on the application if the application was prepared by a third party. The applicant must certify that the information provided in the application is correct. The third-party preparer must also sign the application and certify that the information provided is correct.

f) **Additional Program Information.** Individuals desiring further information are encouraged to call the TERP staff at 1-800-919-TERP (8377).

g) **Public Information.** Upon submission, all applications become the property of the State of Texas and as such become subject to the Texas Public Information Act, Texas Government Code Chapter 552.

3.0 SELECTION CRITERIA

a) **First-Come, First-Served.** Applications will be date and time stamped as they are received by the TERP program staff. The date and time an application is received in the TCEQ mail room will not be the determining factor. Subject to the additional criteria in this section, properly completed and eligible projects will be processed for approval on a first-come-first-served basis. Incomplete or ineligible applications will be returned to the applicant. Corrected or changed applications will be considered based on the date and time at which the corrected or changed versions are received and stamped by the TERP program staff. Properly completed and eligible applications will be reviewed by TERP staff and recommended for award.

b) **Small Business Incentives.** Applications from eligible small businesses will be considered for rebate grant awards from the funds set aside by the TCEQ for small business applications. The set-aside amount will be established at the discretion of the TCEQ and the amount may be changed as determined appropriate without an amendment to this notice. After the small business set aside funding amount is exceeded, applications from small businesses will be processed along with other applications in the order received.

c) **Additional Criteria.** Regardless of the date and time that an otherwise eligible application is received, the TCEQ may consider the additional criteria explained below when selecting applications for grant funding:

1. The TCEQ may base funding decisions on other factors associated with best achieving the goals of the program, and the TCEQ is not obligated to fund a project. As part of this consideration, the TCEQ may give priority to projects in certain areas and/or for certain emission sectors.
2. The TCEQ may make selection for funding contingent upon agreement by the applicant with additional conditions or changes to the project pertaining to equipment, logistical considerations, expenses, and other program elements.
3. The TCEQ may fund projects at less than the maximum rebate grant amounts listed in the appendices.
4. The TCEQ is not obligated to fund a proposal from an applicant that has demonstrated marginal or unsatisfactory performance on previous grants and contracts with the TCEQ and other state agencies. A rating of marginal or unsatisfactory performance on past contracts may be used as a basis to lower or otherwise change the priority and ranking of an application.
5. The TCEQ is not obligated to fund a proposal from an applicant or for a project based on a determination of the risks associated with the applicant and/or project, including the financial condition of the applicant and other risk factors as may be determined by the TCEQ. The TCEQ may also include additional controls in a grant contract to address the risks that may be involved with providing a grant to an applicant considered to be high risk.
6. The TCEQ is not obligated to fund a proposal from an applicant that is under federal, state, or local enforcement action for violation of environmental laws or permit conditions.

7. The TCEQ is not obligated to fund a proposal from an applicant with an overall compliance history classification of Unsatisfactory (55.01 or greater) on the TCEQ's Compliance History Database, for applicants that are subject to the rating.
8. Rebate grant awards may be held until the selections are made for the FY 2017 Emissions Reduction Incentive Grants (ERIG) program.

4.0 CONTRACTING

a) **Contracting.** Entities selected to receive grant funding will be required to execute a contract with the TCEQ. All services or work carried out under a contract awarded as a result of this RFGA must be completed within the scope, time frames, and funding limitations specified in the contract. A copy of the contract shell is available on the TERP website.

b) For purposes of funding and fulfillment of the TCEQ's obligations to provide reimbursement under the grant, a date will be specified in the contract by which all expenses must have been incurred and reimbursement requested. The contract term will then extend for the Activity Life. The grant recipient will need to agree with and obligate to commitments for achieving emissions reductions for the life of the activity. Before signing a grant contract, grant recipients must read and agree to the commitments under the grant contract, including the deadlines for incurring expenses and requesting reimbursement and the obligations over the full contract term.

c) **Grant Award and Contracting.** Successful applicants will be notified by phone or other means of their selection and the amount of grant funds that may be awarded. At that time, the applicant will need to confirm to the TCEQ if the applicant intends to accept the grant. A grant contract will be developed and two copies will be provided to the applicant to sign and return to the TCEQ. Upon signature and execution of the contracts by the TCEQ, one original, signed contract will be returned to the applicant, at which time the grant will be considered awarded.

d) **Notice to Proceed.** The execution of a contract will not be the final commitment by the TCEQ to provide the funds. A subsequent Notice to Proceed (NTP) will be issued to the grant recipient when sufficient funds become available, and any eligible expenses incurred prior to receipt of the notice will be at the grant recipients own risk. The NTP may also include authorization for a lesser reimbursement amount than originally approved in the contract, based on the amount of funds available.

e) The TCEQ may also make issuance of a NTP contingent upon receiving any additional documentation and information that may be needed from the applicant, including inspection by the TCEQ of a vehicle, equipment, and/or engine to be replaced under the grant to verify information and the condition of the vehicle, equipment, or engine.

f) **Reimbursement.** The grant recipient may submit a request for reimbursement after the expenses are both incurred and paid, which must be within the period of availability as specified in the contract.

g) **Contractor Evaluation.** The TCEQ may prepare a written evaluation of the performance of the grant recipient upon completion of the terms of the grant contract, or more frequently, as deemed necessary by the TCEQ. A copy of the evaluation will be provided to the grant recipient and a copy retained in the TCEQ's contract files. The content of the evaluation shall be wholly within the discretion of the TCEQ. The grant recipient may provide a written statement which explains or disagrees with the evaluation, which will be incorporated into the evaluation. The grant recipient waives any claim for damages against TCEQ for the evaluation. A rating of marginal or unsatisfactory performance may be used as a basis to lower or otherwise change the priority and ranking of a future application.

5.0 CONSIDERATION OF APPLICATION IN FUTURE GRANT ROUNDS

The TCEQ may, at its discretion, retain applications not selected for funding under this notice for consideration under a new notice issued for a future grant round. Applicants will be notified by the TCEQ if their application is retained for consideration under a future grant round and will be given the option of withdrawing their application from consideration.

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APPENDIX A: INSTRUCTIONS FOR DETERMINING MAXIMUM GRANT AMOUNTS

Instructions are provided below for using the tables provided in Appendix C (5 years) and Appendix D (7 years) for on-road vehicle projects and Appendix E and F for non-road equipment projects to determine the maximum rebate grant amount available for a proposed project.

1. On-Road Vehicles (Appendix C and D)

Step 1. Determine the Gross-Vehicle Weight Rating (GVWR) of the Vehicle

The GVWR is the total allowable or recommended vehicle weight, including the loaded weight of the vehicle, driver, passengers, and cargo. The rated weight is usually found on a label affixed to the inside of the door or other area of the vehicle and may also be listed on the vehicle title and registration documents.

If the vehicle is normally operated in combination with a trailer, such as an 18-wheel semi-tractor and trailer rig, then use the Gross Combined Weight Rating (GCWR) of both the vehicle and the trailer. However, if a trailer is only attached occasionally, use the GVWR for the vehicle only. Check with TCEQ staff if you are unsure as to what GVWR to use. Further information regarding the GVWR can be found in Appendix J.

Note: Appendix C and D include tables that list maximum grant amounts for On-Road Vehicles with a GVWR greater than 60,000 lbs. The first table in Appendix C and D should be used for tractor-trailer combination haul trucks only. The subsequent table in Appendix C and D should be used for vehicles other than a haul truck with a GVWR greater than 60,000 lbs.

Step 2. Select either a 5-year or 7-year Activity Life

The grant recipient must agree to monitor the use of grant-funded vehicles or equipment for the designated Activity Life. For this program, an applicant must choose in the application form an Activity Life of either 5 or 7 years. The maximum rebate grant amount table corresponding to the Activity Life chosen must be used to determine the grant amount. The Activity Life is the period of time (in years) used to calculate the amount of NO_X emissions reductions that will be achieved through the use of the grant-funded vehicle or equipment.

Step 3. Find the Rebate Grant Table for the GVWR and Activity Life

The tables in Appendix C correspond to an Activity Life of 5 years, while Appendix D includes the tables corresponding to a 7-year Activity Life. Tables are provided showing the maximum funding amounts for use in the eligible counties. The applicant must use the table applicable to the weight category of the vehicle and Activity Life chosen. Note that you may not replace a vehicle from one weight category with a vehicle from another weight category.

Step 4. Determine the Model Year of the Replacement Vehicle and Engine

You must know the model year of your current vehicle and engine. If the original engine was replaced with a later model year engine, use the model year of the engine and not the year of the vehicle itself.

On-road heavy duty engines are certified by the U.S. Environmental Protection Agency (EPA) to meet federal nitrogen oxides (NO_X) emission standards established by year. The standards are usually expressed in grams per brake horsepower hour (g/bhp-hr) of NO_X. Normally, an engine will be certified to meet the emission standard applicable to the year in which the engine was manufactured. However, there are exceptions to this approach as listed below:

a) Beginning in 2007, manufacturers of on-road heavy duty diesel engines were required to begin a phase-in period for compliance with a new federal NO_X emission standard of 0.2 g/bhp-hr. From 2007 through 2009, manufacturers must have averaged 1.2 g/bhp-hr across the range of engines sold. The standard for engines manufactured in 2010 is 0.2 g/bhp-hr, although not all 2010 engines will meet this standard.

   i) The maximum rebate grant tables list different NO_X emissions options for 2007 and beyond on-road engine certifications. Use the rebate grant amount corresponding to the range of emission rates applicable to the certified emissions rate of that engine.

b) If the replacement on-road vehicle/engine is powered by electricity, use the lowest emission rate range shown on the table.

Step 5. Determine the Maximum Rebate Grant Amount

Once you have selected the table from either Appendix C or D applicable to the weight category of your vehicle and the Activity Life, find the column that applies to the year of the vehicle and/or engine being replaced. Go down that column to the line corresponding to the year and emissions rate of the vehicle and/or engine being purchased.Note the maximum rebate grant amount listed for that combination of old and replacement vehicle and/or engine.

2. Non-Road Equipment (Appendix E and F)

Step 1. Select either a 5-year or 7-year Activity Life.

The grant recipient must agree to monitor the use of grant-funded vehicle or equipment for the designated Activity Life. For this program, an applicant must choose in the application form an Activity Life of either 5 or 7 years. The maximum rebate grant amount table corresponding to the Activity Life chosen must be used to determine the grant amount. The Activity Life is the period of time (in years) used to calculate the amount of NO_X emissions reductions that will be achieved through the use of the grant-funded vehicle or equipment.

Step 2. Find the Rebate Grant Table for the Equipment Type and Activity Life

The tables in Appendix D correspond to an Activity Life of 5 years, while Appendix E includes the tables corresponding to a 7-year Activity Life. A different table is provided for each type of equipment eligible for funding under this program, including **separate tables for terminal tractors with non-road certified engines, and terminal tractors with *on-road* certified engines**. Find the table corresponding to the selected Activity Life and your equipment type. Note that you may not replace one type of equipment with another type. The types of equipment eligible for a rebate grant are listed below:

SCC Code	Description
2270002036	excavators
2270002045	cranes
2270002048	graders
2270002051	off-highway trucks
2270002054	crushing processing equipment
2270002057	rough terrain forklifts

SCC Code	Description
2270002060	rubber tire loaders
2270002066	tractors / loaders / backhoes
2270002069	crawler tractors
2270002072	skid steer loaders
2270002075	off-highway tractors
2270003020	forklifts
2270003070	terminal tractors
2270005015	agricultural tractors
2270005020	combines

Step 3. Determine the Horsepower of the Equipment

You must know the horsepower of your current equipment engine and the horsepower of the replacement equipment engine. The horsepower should be the manufacturer's rated horsepower of that engine in that type of equipment.

You must use the rebate grant amount that corresponds with the horsepower of the old equipment in your rebate grant application.

Step 4. Determine the Model Year of the Equipment and Engine

You must know the model year of your current engine. If the original engine was replaced with a later model year engine, use the model year of the engine and not the year of the equipment itself.

Step 5. Determine the Certified Emissions Rate and Model Year of the Equipment and Engine Being Purchased

Non-road heavy duty diesel engines are certified by the U.S. Environmental Protection Agency (EPA) to meet federal nitrogen oxides (NO_X) emission standards established by year. The standards are usually expressed in grams per brake horsepower hour (g/bhp-hr). Normally, an engine will be certified to the emission standard applicable to the year in which the engine was manufactured. However, there are exceptions to this approach. Some manufacturers (and in particular, Caterpillar, Inc.) may have non-road engines manufactured specifically for repowers that only meet a Tier 1 emission standard, even though the Tier 2 or 3 standard would normally apply for engines manufactured in that year. These engines may be used only to repower older equipment and not for installation in a new piece of equipment. Be sure to check with the engine supplier for all repower projects and particularly repower projects involving engines manufactured by Caterpillar, Inc. If the engine identified for purchase is certified to only a Tier 1 standard, even though the new engine emission standard for the year of manufacture is Tier 2 or above, use the Tier 1 emission level to determine the rebate grant amount. See Appendix B for a list of emission standards and tier levels by year.

Beginning in 2011, manufacturers of non-road heavy duty diesel engines were required to begin a phase-in period for compliance with a new federal NO_X emissions standard. The manufacturer's engine production must meet these standards during each year of the phase-in. Therefore, it is not guaranteed that a Tier 4 (Phase-In) equipment and/or engine meet the lower standard. If an applicant proposes to purchase a Tier 4 (Phase-In) equipment and/or engine, the applicant must certify in the application the emission level that the new equipment and/or engine will meet. Copies of the form certifying the engine family to the lower emission standard must be provided.

Step 6. Determine the Maximum Rebate Grant Amount

Once you have selected the table for your type of equipment, based upon the equipment type and horsepower range of the replacement engine, find the column corresponding to the horsepower range and emissions model year of the engine being replaced. Next, find the row corresponding to the certified NO_X emissions standard or Family Emissions Limit (FEL) of the replacement engine (**Note: if your emissions standard is between the numbers listed, use the nearest higher emissions rate listed on the table**) Find the maximum rebate grant amount listed for that combination of old and replacement equipment and/or engine.

APPENDIX B: NO_X EMISSION STANDARDS

On-Road Vehicles

On-Road Heavy-Duty Diesel Compression-Ignition (CI) Engines NO_X Emission Standards by Model Year

Emissions Model Year	Diesel Engines Emissions Standard	
	NO_X Only (g/bhp-hr)	**NO_X +NMHC (g/bhp-hr)**
1989 and earlier	10.7	
1990	6.0	
1991-1997	5.0	
1998-2001	4.0	
2002	4.0	
2003	4.0	
2004 -2006	2.375	2.5
2007 - 2009	2.375 – 0.2	
2010+	0.2	

**Some manufacturers were producing 2003 engines that met the more stringent 2.375 g/bhp-hr standard.*

Non-Road Equipment

Non-Road Diesel Compression-Ignition (CI) Engines NO_X Emission Standards by Model Year

Engine Power (HP)	Tier	Model Year	Emissions (NO_X) g/bhp-hr	Emissions (NO_X + NMHC) g/bhp-hr
25≤hp<50 (19≤kW<37)	Tier 0 (uncontrolled)	pre-1999	7.2	N/A
	Tier 1	1999-2003	6.745	7.1
	Tier 2	2004-2012	5.32	5.6
	Tier 4	2013+	3.325	3.5
50≤hp<100 (37≤kW<75)	Tier 0 (uncontrolled)	pre-1998	8.8	N/A
	Tier 1	1998-2003	6.9	N/A
	Tier 2	2004-2007	5.32	5.6
	Tier 3	2008-2012	3.325	3.5
100≤hp<175 (75≤kW<130)	Tier 0 (uncontrolled)	pre - 1997	9.5	N/A
	Tier 1	1997-2002	6.9	N/A
	Tier 2	2003-2006	4.655	4.9
	Tier 3	2007-2011	2.85	3.0
	Tier 4 (Phase-In)	2012-2013	0.30-2.851	N/A
	Tier 4	2014+	0.30	N/A
175≤hp<300 (130≤kW<225)	Tier 0 (uncontrolled)	pre-1996	9.3	N/A
	Tier 1	1996-2002	6.9	N/A
	Tier 2	2003-2005	4.655	4.9
	Tier 3	2006-2010	2.85	3.0
	Tier 4 (Phase-In)	2011-2013	0.30-2.851	N/A
	Tier 4	2014+	0.30	N/A
300≤hp<600 (225≤kW<450)	Tier 0 (uncontrolled)	pre-1996	9.5	N/A
	Tier 1	1996-2000	6.9	N/A
	Tier 2	2001-2005	4.56	4.8
	Tier 3	2006-2010	2.85	3.0
	Tier 4 (Phase-In)	2011-2013	0.30-2.851	N/A
	Tier 4	2014+	0.30	N/A

Non-Road Equipment (continued)

Non-Road Diesel Compression-Ignition (CI) Engines NO_X Emission Standards by Model Year

Engine Power (HP)	Tier	Model Year	Emissions (NO_X) g/bhp-hr	Emissions (NO_X + NMHC) g/bhp-hr
600≤hp<750 (450≤kW<560)	Tier 0 (uncontrolled)	pre-1996	9.7	N/A
	Tier 1	1996-2001	6.9	N/A
	Tier 2	2002-2005	4.56	4.8
	Tier 3	2006-2010	2.85	3.0
	Tier 4 (Phase-In)	2011-2013	0.30-2.851	N/A
	Tier 4	2014+	0.30	N/A

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APPENDIX C: 5-YEAR ACTIVITY LIFE ON-ROAD HEAVY-DUTY VEHICLES ELIGIBLE WEIGHT CATEGORIES, MODEL YEARS, AND MAXIMUM REBATE GRANT AMOUNTS

On-Road Heavy-Duty Vehicle (HDDV8b)

GVWR (lbs): Greater than 60,000; Tractor-Trailer Combination Haul Truck Only

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1980 or earlier	1981	1982 - 1983	1984 - 1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$48,036	$45,846	$42,405	$42,092	$41,780	$45,846	$44,908										
5.000	1991		$57,829	$55,640	$52,199	$51,886	$51,573	$55,640	$54,701										
5.000	1992		$58,268	$56,078	$52,637	$52,325	$52,012	$56,078	$55,140										
5.000	1993		$58,707	$56,517	$53,076	$52,763	$52,450	$56,517	$55,578										
5.000	1994		$58,999	$56,809	$53,368	$53,055	$52,743	$56,809	$55,871										
5.000	1995		$59,437	$57,248	$53,807	$53,494	$53,181	$57,248	$56,309										
5.000	1996 - 1997		$59,876	$57,686	$54,245	$53,932	$53,620	$57,686	$56,748										
4.000	1998 - 2003		$68,734	$66,544	$63,103	$62,791	$62,478	$66,544	$65,606	$20,698									
2.375	2004 - 2007		$83,129	$80,939	$77,498	$77,185	$76,872	$80,939	$80,000	$35,093	$25,299	$24,861	$24,422	$24,130	$23,691	$23,253	$14,395		
1.500	2007 +		$90,880	$88,690	$85,249	$84,936	$84,623	$88,690	$87,751	$42,844	$33,050	$32,611	$32,173	$31,881	$31,442	$31,004	$22,145	$7,751	
0.500	2007 +		$99,738	$97,548	$94,107	$93,794	$93,481	$97,548	$96,610	$51,702	$41,908	$41,470	$41,031	$40,739	$40,300	$39,862	$31,004	$16,609	
0.200	2007 +		$102,395	$100,205	$96,764	$96,452	$96,139	$100,205	$99,267	$54,359	$44,566	$44,127	$43,689	$43,396	$42,958	$42,519	$33,661	$19,267	
0.000	2007 +		$104,167	$101,977	$98,536	$98,223	$97,911	$101,977	$101,039	$56,131	$46,337	$45,899	$45,460	$45,168	$44,729	$44,291	$35,433	$21,038	$1,772

On-Road Heavy-Duty Vehicle (HDDV8b)

GVWR (lbs): Greater than 60,000; Other Than Tractor-Trailer Combination Haul Truck

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982 - 1983	1984 - 1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$32,024	$30,564	$28,270	$28,062	$27,853	$30,564	$29,938										
5.000	1991	$38,553	$37,093	$34,799	$34,591	$34,382	$37,093	$36,468										
5.000	1992	$38,845	$37,386	$35,092	$34,883	$34,675	$37,386	$36,760										
5.000	1993	$39,138	$37,678	$35,384	$35,175	$34,967	$37,678	$37,052										
5.000	1994	$39,333	$37,873	$35,579	$35,370	$35,162	$37,873	$37,247										
5.000	1995	$39,625	$38,165	$35,871	$35,663	$35,454	$38,165	$37,540										
5.000	1996 - 1997	$39,917	$38,457	$36,164	$35,955	$35,746	$38,457	$37,832										
4.000	1998 - 2003	$45,823	$44,363	$42,069	$41,860	$41,652	$44,363	$43,737	$13,799									
2.375	2004 - 2007	$55,419	$53,959	$51,665	$51,457	$51,248	$53,959	$53,334	$23,395	$16,866	$16,574	$16,281	$16,086	$15,794	$15,502	$9,596		
1.500	2007 +	$60,586	$59,127	$56,833	$56,624	$56,416	$59,127	$58,501	$28,562	$22,033	$21,741	$21,449	$21,254	$20,961	$20,669	$14,764	$5,167	
0.500	2007 +	$66,492	$65,032	$62,738	$62,529	$62,321	$65,032	$64,406	$34,468	$27,939	$27,646	$27,354	$27,159	$26,867	$26,574	$20,669	$11,073	
0.200	2007 +	$68,263	$66,804	$64,510	$64,301	$64,093	$66,804	$66,178	$36,240	$29,710	$29,418	$29,126	$28,931	$28,638	$28,346	$22,441	$12,844	
0.000	2007 +	$69,445	$67,985	$65,691	$65,482	$65,274	$67,985	$67,359	$37,421	$30,892	$30,599	$30,307	$30,112	$29,820	$29,527	$23,622	$14,025	$1,181

On-Road Heavy-Duty Vehicle (HDDV8a)

GVWR (lbs): 33,001 - 60,000

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982	1983	1984	1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$29,901	$30,944	$30,527	$29,901	$29,484	$28,859	$28,442	$27,607	$26,982										
5.000	1991	$35,846	$36,889	$36,471	$35,846	$35,429	$34,803	$34,386	$33,552	$32,926										
5.000	1992	$36,041	$37,083	$36,666	$36,041	$35,624	$34,998	$34,581	$33,747	$33,121										
5.000	1993	$36,236	$37,278	$36,861	$36,236	$35,819	$35,193	$34,776	$33,942	$33,316										
5.000	1994	$36,431	$37,473	$37,056	$36,431	$36,013	$35,388	$34,971	$34,137	$33,511										
5.000	1995	$36,723	$37,766	$37,349	$36,723	$36,306	$35,680	$35,263	$34,429	$33,803										
5.000	1996 - 1997	$36,918	$37,961	$37,543	$36,918	$36,501	$35,875	$35,458	$34,624	$33,998										
4.000	1998 - 2003	$42,297	$43,340	$42,923	$42,297	$41,880	$41,254	$40,837	$40,003	$39,377	$12,396									
2.375	2004 - 2007	$51,038	$52,081	$51,664	$51,038	$50,621	$49,996	$49,578	$48,744	$48,119	$21,137	$15,192	$14,997	$14,803	$14,608	$14,315	$14,120	$8,741		
1.500	2007 +	$55,745	$56,788	$56,371	$55,745	$55,328	$54,702	$54,285	$53,451	$52,825	$25,844	$19,899	$19,704	$19,509	$19,315	$19,022	$18,827	$13,448	$4,707	
0.500	2007 +	$61,124	$62,167	$61,750	$61,124	$60,707	$60,082	$59,664	$58,830	$58,205	$31,223	$25,278	$25,084	$24,889	$24,694	$24,401	$24,206	$18,827	$10,086	
0.200	2007 +	$62,738	$63,781	$63,364	$62,738	$62,321	$61,695	$61,278	$60,444	$59,818	$32,837	$26,892	$26,697	$26,502	$26,307	$26,015	$25,820	$20,441	$11,700	
0.000	2007 +	$63,814	$64,857	$64,440	$63,814	$63,397	$62,771	$62,354	$61,520	$60,894	$33,912	$27,968	$27,773	$27,578	$27,383	$27,091	$26,896	$21,517	$12,776	$1,076

On-Road Heavy-Duty Vehicle (HDDV2b)

GVWR (lbs): 8,501 - 10,000

5-year Activity Life

(Beginning with model year 2004, vehicles between 8,500 and 10,000 lb GVWR that are used primarily for passenger use were reclassified to Medium Duty Passenger Vehicles (MDPV) vehicles. These are primarily vans and SUVs and are not eligible for the rebate program.)

Please read the instructions provided on a separate sheet before using this table.

Engine Being Replaced Emissions Model Year			1981 or earlier	1982 - 1987	1988 - 1989	1990	1991 - 1992	1993 - 1997	1998 - 2003	2004 - 2006	2007 +
Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year										
6.000	1990		$2,527	$2,371	$3,779						
5.000	1991 - 1992		$3,331	$3,175	$4,583						
5.000	1993 - 1997		$3,368	$3,211	$4,619						
4.000	1998 - 2003		$4,165	$4,008	$5,416	$1,637					
2.375	2004 - 2007		$5,459	$5,303	$6,710	$2,932	$2,128	$2,091	$1,295		
1.500	2007 +		$6,156	$6,000	$7,407	$3,629	$2,825	$2,788	$1,992	$697	
0.500	2007 +		$6,953	$6,796	$8,204	$4,425	$3,621	$3,585	$2,788	$1,494	
0.200	2007 +		$7,192	$7,035	$8,443	$4,664	$3,860	$3,824	$3,027	$1,733	
0.000	2007 +		$7,351	$7,195	$8,602	$4,824	$4,020	$3,983	$3,187	$1,892	$159

On-Road Heavy-Duty Vehicle (HDDV3)

GVWR (lbs): 10,001 - 14,000

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Engine Being Replaced Emissions Model Year			1987 or earlier	1988 - 1989	1990	1991 - 1997	1998 - 2003	2004 - 2006	2007 +
Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year								
6.000	1990		$8,282	$4,294					
5.000	1991 - 1997		$9,196	$5,207					
4.000	1998 - 2003		$10,109	$6,121	$1,827				
2.375	2004 - 2007		$11,594	$7,606	$3,312	$2,398	$1,485		
1.500	2007 +		$12,393	$8,405	$4,111	$3,198	$2,284	$799	
0.500	2007 +		$13,307	$9,319	$5,025	$4,111	$3,198	$1,713	
0.200	2007 +		$13,581	$9,593	$5,299	$4,385	$3,472	$1,987	
0.000	2007 +		$13,764	$9,775	$5,482	$4,568	$3,654	$2,170	$183

On-Road Heavy-Duty Vehicle (HDDV4)

GVWR (lbs): 14,001 - 16,000

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1987 or earlier	1988	1989	1990	1991 - 1992	1993 - 1994	1995 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$9,640	$6,929	$6,824							
5.000	1991 - 1992		$11,140	$8,429	$8,325							
5.000	1993 - 1994		$11,189	$8,478	$8,374							
5.000	1995 - 1997		$11,238	$8,527	$8,423							
4.000	1998 - 2003		$12,661	$9,950	$9,845	$3,021						
2.375	2004 - 2007		$14,973	$12,262	$12,157	$5,333	$3,832	$3,783	$3,735	$2,312		
1.500	2007 +		$16,218	$13,507	$13,402	$6,578	$5,077	$5,028	$4,980	$3,557	$1,245	
0.500	2007 +		$17,640	$14,929	$14,825	$8,001	$6,500	$6,451	$6,402	$4,980	$2,668	
0.200	2007 +		$18,067	$15,356	$15,252	$8,427	$6,927	$6,878	$6,829	$5,407	$3,095	
0.000	2007 +		$18,352	$15,641	$15,536	$8,712	$7,211	$7,163	$7,114	$5,691	$3,379	$285

On-Road Heavy-Duty Vehicle (HDDV5)

GVWR (lbs): 16,001 - 19,500

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1987 or earlier	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$8,704	$7,870	$7,661										
5.000	1991		$10,361	$9,527	$9,318										
5.000	1992		$10,458	$9,624	$9,416										
5.000	1993		$10,507	$9,673	$9,464										
5.000	1994		$10,556	$9,722	$9,513										
5.000	1995		$10,604	$9,770	$9,562										
5.000	1996 - 1997		$10,702	$9,868	$9,659										
4.000	1998 - 2003		$12,232	$11,398	$11,189	$3,528									
2.375	2004 - 2007		$14,718	$13,884	$13,675	$6,014	$4,357	$4,260	$4,211	$4,162	$4,114	$4,016	$2,486		
1.500	2007 +		$16,057	$15,223	$15,014	$7,353	$5,696	$5,598	$5,550	$5,501	$5,452	$5,355	$3,825	$1,339	
0.500	2007 +		$17,587	$16,753	$16,544	$8,883	$7,226	$7,128	$7,080	$7,031	$6,982	$6,885	$5,355	$2,869	
0.200	2007 +		$18,046	$17,212	$17,003	$9,342	$7,685	$7,587	$7,539	$7,490	$7,441	$7,344	$5,814	$3,328	
0.000	2007 +		$18,352	$17,518	$17,309	$9,648	$7,991	$7,893	$7,845	$7,796	$7,747	$7,650	$6,120	$3,634	$306

On-Road Heavy-Duty Vehicle (HDDV6)

GVWR (lbs): 19,501 - 26,000

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982	1983	1984	1985	1987	1988	1989	1990	1993	1995	1997	2003	2006	2007 +
6.000	1990	$9,961	$9,231	$8,606	$8,397	$8,189	$8,084	$7,980	$9,127	$9,023							
5.000	1991 - 1993	$11,930	$11,200	$10,574	$10,366	$10,157	$10,053	$9,949	$11,096	$10,991							
5.000	1994 - 1995	$11,979	$11,249	$10,623	$10,414	$10,206	$10,102	$9,997	$11,144	$11,040							
5.000	1996 - 1997	$12,027	$11,297	$10,672	$10,463	$10,255	$10,150	$10,046	$11,193	$11,089							
4.000	1998 - 2003	$13,918	$13,188	$12,562	$12,354	$12,145	$12,041	$11,937	$13,084	$12,979	$3,956						
2.375	2004 - 2007	$16,990	$16,260	$15,634	$15,426	$15,217	$15,113	$15,009	$16,156	$16,051	$7,029	$5,060	$5,011	$4,963	$3,072		
1.500	2007 +	$18,644	$17,914	$17,289	$17,080	$16,871	$16,767	$16,663	$17,810	$17,706	$8,683	$6,714	$6,666	$6,617	$4,726	$1,654	
0.500	2007 +	$20,535	$19,805	$19,179	$18,971	$18,762	$18,658	$18,553	$19,700	$19,596	$10,573	$8,605	$8,556	$8,507	$6,617	$3,545	
0.200	2007 +	$21,102	$20,372	$19,746	$19,538	$19,329	$19,225	$19,121	$20,268	$20,163	$11,140	$9,172	$9,123	$9,075	$7,184	$4,112	
0.000	2007 +	$21,480	$20,750	$20,124	$19,916	$19,707	$19,603	$19,499	$20,646	$20,541	$11,519	$9,550	$9,501	$9,453	$7,562	$4,490	$378

On-Road Heavy-Duty Vehicle (HDDV7)

GVWR (lbs): 26,001 - 33,000

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982	1983	1984	1985	1986 - 1987	1988 - 1989	1990	1991 - 1993	1994 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$9,428	$9,220	$8,803	$8,698	$8,490	$8,281	$8,177	$10,888						
5.000	1991 - 1993	$11,767	$11,558	$11,141	$11,037	$10,829	$10,620	$10,516	$13,227						
5.000	1994 - 1997	$11,718	$11,510	$11,093	$10,988	$10,780	$10,571	$10,467	$13,178						
4.000	1998 - 2003	$14,067	$13,858	$13,441	$13,337	$13,128	$12,920	$12,816	$15,527	$4,639					
2.375	2004 - 2007	$17,883	$17,675	$17,258	$17,153	$16,945	$16,736	$16,632	$19,343	$8,455	$6,116	$6,165	$3,816		
1.500	2007 +	$19,938	$19,730	$19,313	$19,208	$19,000	$18,791	$18,687	$21,398	$10,510	$8,171	$8,220	$5,871	$2,055	
0.500	2007 +	$22,287	$22,078	$21,661	$21,557	$21,348	$21,140	$21,035	$23,747	$12,858	$10,520	$10,568	$8,220	$4,404	
0.200	2007 +	$22,991	$22,783	$22,366	$22,261	$22,053	$21,844	$21,740	$24,451	$13,563	$11,224	$11,273	$8,924	$5,108	
0.000	2007 +	$23,461	$23,252	$22,835	$22,731	$22,523	$22,314	$22,210	$24,921	$14,033	$11,694	$11,743	$9,394	$5,578	$470

On-Road Heavy-Duty Vehicle (HDDBS)

School Bus

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980	1981	1982 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$448	$500	$553	$6,027	$6,131										
5.000	1991	$1,739	$1,792	$1,844	$7,318	$7,422										
5.000	1992	$1,593	$1,645	$1,698	$7,172	$7,276										
5.000	1993	$1,471	$1,524	$1,576	$7,050	$7,154										
5.000	1994	$1,325	$1,377	$1,430	$6,904	$7,008										
5.000	1995	$1,204	$1,256	$1,308	$6,782	$6,886										
5.000	1996 - 1997	$1,057	$1,109	$1,162	$6,636	$6,740										
4.000	1998 - 2003	$2,514	$2,566	$2,618	$8,093	$8,197	$2,066									
2.375	2004 - 2007	$4,882	$4,934	$4,986	$10,460	$10,564	$4,433	$3,142	$3,288	$3,410	$3,556	$3,678	$3,824	$2,367		
1.500	2007 +	$6,156	$6,209	$6,261	$11,735	$11,839	$5,708	$4,417	$4,563	$4,685	$4,831	$4,953	$5,099	$3,642	$1,275	
0.500	2007 +	$7,613	$7,665	$7,718	$13,192	$13,296	$7,165	$5,874	$6,020	$6,142	$6,288	$6,410	$6,556	$5,099	$2,732	
0.200	2007 +	$8,050	$8,102	$8,155	$13,629	$13,733	$7,602	$6,311	$6,457	$6,579	$6,725	$6,847	$6,993	$5,536	$3,169	
0.000	2007 +	$8,342	$8,394	$8,446	$13,920	$14,024	$7,893	$6,602	$6,748	$6,870	$7,016	$7,138	$7,284	$5,827	$3,460	$291

On-Road Heavy-Duty Vehicle (HDDBT)

Transit or Urban Bus

5-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982 - 1987	1988 - 1989	1990	1991 - 1992	1993 - 1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$12,069	$13,894	$14,988	$32,141							
5.000	1991 - 1992	$18,907	$20,732	$21,827	$38,980							
5.000	1993 - 1995	$18,822	$20,647	$21,742	$38,894							
5.000	1996 - 1997	$18,737	$20,562	$21,656	$38,809							
4.000	1998 - 2003	$25,610	$27,434	$28,529	$45,682	$13,541						
2.375	2004 - 2007	$36,778	$38,602	$39,697	$56,850	$24,709	$17,870	$17,955	$18,041	$11,168		
1.500	2007 +	$42,791	$44,616	$45,711	$62,863	$30,722	$23,884	$23,969	$24,054	$17,182	$6,014	
0.500	2007 +	$49,664	$51,488	$52,583	$69,736	$37,595	$30,756	$30,842	$30,927	$24,054	$12,886	
0.200	2007 +	$51,726	$53,550	$54,645	$71,798	$39,657	$32,818	$32,903	$32,989	$26,116	$14,948	
0.000	2007 +	$53,100	$54,925	$56,020	$73,172	$41,031	$34,193	$34,278	$34,363	$27,491	$16,322	$1,375

APPENDIX C: 7-YEAR ACTIVITY LIFE ON-ROAD HEAVY-DUTY VEHICLES ELIGIBLE WEIGHT CATEGORIES, MODEL YEARS, AND MAXIMUM REBATE GRANT AMOUNTS

On-Road Heavy-Duty Vehicle (HDDV8b)

GVWR (lbs): Greater than 60,000; Tractor-Trailer Combination Haul Truck Only

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1980 or earlier	1981	1982 - 1983	1984 - 1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$67,250	$64,185	$59,367	$58,929	$58,491	$64,185	$62,871										
5.000	1991		$80,961	$77,896	$73,078	$72,640	$72,203	$77,896	$76,582										
5.000	1992		$81,575	$78,510	$73,692	$73,254	$72,816	$78,510	$77,196										
5.000	1993		$82,189	$79,124	$74,306	$73,868	$73,430	$79,124	$77,810										
5.000	1994		$82,598	$79,533	$74,716	$74,278	$73,840	$79,533	$78,219										
5.000	1995		$83,212	$80,147	$75,329	$74,892	$74,454	$80,147	$78,833										
5.000	1996 - 1997		$83,826	$80,761	$75,943	$75,505	$75,068	$80,761	$79,447										
4.000	1998 - 2003		$96,228	$93,162	$88,345	$87,907	$87,469	$93,162	$91,848	$28,978									
2.375	2004 - 2007		$116,380	$113,315	$108,497	$108,059	$107,621	$113,315	$112,001	$49,130	$35,419	$34,805	$34,191	$33,782	$33,168	$32,554	$20,152		
1.500	2007 +		$127,231	$124,166	$119,348	$118,910	$118,473	$124,166	$122,852	$59,981	$46,270	$45,656	$45,042	$44,633	$44,019	$43,405	$31,004	$10,851	
0.500	2007 +		$139,633	$136,567	$131,750	$131,312	$130,874	$136,567	$135,253	$72,383	$58,671	$58,058	$57,444	$57,034	$56,420	$55,806	$43,405	$23,253	
0.200	2007 +		$143,353	$140,288	$135,470	$135,032	$134,594	$140,288	$138,974	$76,103	$62,392	$61,778	$61,164	$60,755	$60,141	$59,527	$47,125	$26,973	
0.000	2007 +		$145,833	$142,768	$137,951	$137,513	$137,075	$142,768	$141,454	$78,583	$64,872	$64,258	$63,644	$63,235	$62,621	$62,007	$49,606	$29,453	$2,480

On-Road Heavy-Duty Vehicle (HDDV8b)

GVWR (lbs): Greater than 60,000; Other Than Tractor-Trailer Combination Haul Truck

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1980 or earlier	1981	1982 - 1983	1984 - 1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$44,833	$42,790	$39,578	$39,286	$38,994	$42,790	$41,914										
5.000	1991		$53,974	$51,930	$48,719	$48,427	$48,135	$51,930	$51,055										
5.000	1992		$54,383	$52,340	$49,128	$48,836	$48,544	$52,340	$51,464										
5.000	1993		$54,793	$52,749	$49,538	$49,246	$48,954	$52,749	$51,873										
5.000	1994		$55,066	$53,022	$49,810	$49,518	$49,226	$53,022	$52,146										
5.000	1995		$55,475	$53,431	$50,220	$49,928	$49,636	$53,431	$52,555										
5.000	1996 - 1997		$55,884	$53,840	$50,629	$50,337	$50,045	$53,840	$52,965										
4.000	1998 - 2003		$64,152	$62,108	$58,897	$58,605	$58,313	$62,108	$61,232	$19,318									
2.375	2004 - 2007		$77,587	$75,543	$72,331	$72,039	$71,748	$75,543	$74,667	$32,753	$23,613	$23,203	$22,794	$22,521	$22,112	$21,703	$13,435		
1.500	2007 +		$84,821	$82,777	$79,566	$79,274	$78,982	$82,777	$81,901	$39,987	$30,847	$30,437	$30,028	$29,755	$29,346	$28,937	$20,669	$7,234	
0.500	2007 +		$93,089	$91,045	$87,833	$87,541	$87,249	$91,045	$90,169	$48,255	$39,114	$38,705	$38,296	$38,023	$37,614	$37,204	$28,937	$15,502	
0.200	2007 +		$95,569	$93,525	$90,314	$90,022	$89,730	$93,525	$92,649	$50,735	$41,595	$41,185	$40,776	$40,503	$40,094	$39,685	$31,417	$17,982	
0.000	2007 +		$97,222	$96,179	$91,967	$91,675	$91,383	$95,179	$94,303	$52,389	$43,248	$42,839	$42,430	$42,157	$41,747	$41,338	$33,070	$19,636	$1,654

On-Road Heavy-Duty Vehicle (HDDV8a)

GVWR (lbs): 33,001 - 60,000

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1980 or earlier	1981	1982	1983	1984	1985	1986 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$41,862	$43,322	$42,738	$41,862	$41,278	$40,402	$39,818	$38,650	$37,775										
5.000	1991		$50,184	$51,644	$51,060	$50,184	$49,600	$48,724	$48,140	$46,973	$46,097										
5.000	1992		$50,457	$51,917	$51,333	$50,457	$49,873	$48,997	$48,413	$47,246	$46,370										
5.000	1993		$50,730	$52,190	$51,606	$50,730	$50,146	$49,270	$48,686	$47,518	$46,642										
5.000	1994		$51,003	$52,463	$51,879	$51,003	$50,419	$49,543	$48,959	$47,791	$46,915										
5.000	1995		$51,412	$52,872	$52,288	$51,412	$50,828	$49,952	$49,368	$48,201	$47,325										
5.000	1996 - 1997		$51,685	$53,145	$52,561	$51,685	$51,101	$50,225	$49,641	$48,473	$47,597										
4.000	1998 - 2003		$59,216	$60,676	$60,092	$59,216	$58,632	$57,756	$57,172	$56,004	$55,128	$17,354									
2.375	2004 - 2007		$71,454	$72,913	$72,329	$71,454	$70,870	$69,994	$69,410	$68,242	$67,366	$29,592	$21,269	$20,996	$20,724	$20,451	$20,041	$19,769	$12,238		
1.500	2007 +		$78,043	$79,503	$78,919	$78,043	$77,459	$76,583	$75,999	$74,832	$73,956	$36,181	$27,859	$27,586	$27,313	$27,040	$26,631	$26,358	$18,827	$6,590	
0.500	2007 +		$85,574	$87,034	$86,450	$85,574	$84,990	$84,114	$83,530	$82,362	$81,487	$43,712	$35,390	$35,117	$34,844	$34,571	$34,162	$33,889	$26,358	$14,120	
0.200	2007 +		$87,833	$89,293	$88,709	$87,833	$87,249	$86,373	$85,790	$84,622	$83,746	$45,971	$37,649	$37,376	$37,103	$36,830	$36,421	$36,148	$28,617	$16,380	
0.000	2007 +		$89,339	$90,799	$90,215	$89,339	$88,756	$87,880	$87,296	$86,128	$85,252	$47,477	$39,155	$38,882	$38,610	$38,337	$37,927	$37,655	$30,124	$17,886	$1,506

On-Road Heavy-Duty Vehicle (HDDV2b)

GVWR (lbs): 8,501 - 10,000

7-year Activity Life

(Beginning with model year 2004, vehicles between 8,500 and 10,000 lb GVWR that are used primarily for passenger use were reclassified to Medium Duty Passenger Vehicles (MDPV) vehicles. These are primarily vans and SUVs and are not eligible for the rebate program.)

Please read the instructions provided on a separate sheet before using this table.

Engine Being Replaced Emissions Model Year			1981 or earlier	1982 - 1987	1988 - 1989	1990	1991 - 1992	1993 - 1997	1998 - 2003	2004 - 2006	2007 +
Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year										
6.000	1990		FALSE	$3,319	$5,290						
5.000	1991 - 1992		$4,664	$4,445	$6,416						
5.000	1993 - 1997		$4,715	$4,496	$6,467						
4.000	1998 - 2003		$5,830	$5,611	$7,582	$2,292					
2.375	2004 - 2007		$7,643	$7,424	$9,394	$4,104	$2,979	$2,928	$1,812		
1.500	2007 +		$8,619	$8,400	$10,370	$5,080	$3,955	$3,904	$2,788	$976	
0.500	2007 +		$9,734	$9,515	$11,486	$6,196	$5,070	$5,019	$3,904	$2,091	
0.200	2007 +		$10,068	$9,850	$11,820	$6,530	$5,405	$5,353	$4,238	$2,426	
0.000	2007 +		$10,292	$10,073	$12,043	$6,753	$5,628	$5,577	$4,461	$2,649	$223

On-Road Heavy-Duty Vehicle (HDDV3)

GVWR (lbs): 10,001 - 14,000

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Engine Being Replaced Emissions Model Year			1987 or earlier	1988 - 1989	1990	1991 - 1997	1998 - 2003	2004 - 2006	2007 +
Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year								
6.000	1990		$11,595	$6,011					
5.000	1991 - 1997		$12,874	$7,290					
4.000	1998 - 2003		$14,153	$8,569	$2,558				
2.375	2004 - 2007		$16,232	$10,648	$4,636	$3,357	$2,078		
1.500	2007 +		$17,351	$11,767	$5,756	$4,477	$3,198	$1,119	
0.500	2007 +		$18,630	$13,046	$7,035	$5,756	$4,477	$2,398	
0.200	2007 +		$19,013	$13,430	$7,418	$6,139	$4,860	$2,782	
0.000	2007 +		$19,269	$13,686	$7,674	$6,395	$5,116	$3,038	$256

On-Road Heavy-Duty Vehicle (HDDV4)

GVWR (lbs): 14,001 - 16,000

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1987 or earlier	1988	1989	1990	1991 - 1992	1993 - 1994	1995 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$13,496	$9,700	$9,554							
5.000	1991 - 1992		$15,597	$11,801	$11,655							
5.000	1993 - 1994		$15,665	$11,869	$11,723							
5.000	1995 - 1997		$15,733	$11,938	$11,792							
4.000	1998 - 2003		$17,725	$13,929	$13,783	$4,229						
2.375	2004 - 2007		FALSE	$17,166	$17,020	$7,466	$5,365	$5,297	$5,229	$3,237		
1.500	2007 +		$22,705	$18,909	$18,763	$9,209	$7,108	$7,040	$6,972	$4,980	$1,743	
0.500	2007 +		$24,696	$20,901	$20,755	$11,201	$9,100	$9,032	$8,963	$6,972	$3,735	
0.200	2007 +		$25,294	$21,499	$21,353	$11,798	$9,697	$9,629	$9,561	$7,569	$4,332	
0.000	2007 +		$25,692	$21,897	$21,751	$12,197	$10,096	$10,028	$9,959	$7,967	$4,731	$398

On-Road Heavy-Duty Vehicle (HDDV5)

GVWR (lbs): 16,001 - 19,500

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year	1987 or earlier	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990		$12,186	$11,018	$10,726										
5.000	1991		$14,505	$13,337	$13,045										
5.000	1992		$14,642	$13,474	$13,182										
5.000	1993		$14,710	$13,542	$13,250										
5.000	1994		$14,778	$13,610	$13,318										
5.000	1995		$14,846	$13,678	$13,386										
5.000	1996 - 1997		$14,983	$13,815	$13,523										
4.000	1998 - 2003		$17,125	$15,957	$15,665	$4,939									
2.375	2004 - 2007		$20,605	$19,437	$19,145	$8,419	$6,100	$5,964	$5,895	$5,827	$5,759	$5,623	$3,481		
1.500	2007 +		$22,479	$21,312	$21,020	$10,294	$7,974	$7,838	$7,770	$7,701	$7,633	$7,497	$5,355	$1,874	
0.500	2007 +		$24,621	$23,454	$23,162	$12,436	$10,116	$9,980	$9,912	$9,843	$9,775	$9,639	$7,497	$4,016	
0.200	2007 +		$25,264	$24,096	$23,804	$13,078	$10,759	$10,622	$10,554	$10,486	$10,418	$10,281	$8,139	$4,659	
0.000	2007 +		$25,692	$24,525	$24,233	$13,507	$11,187	$11,051	$10,983	$10,914	$10,846	$10,710	$8,568	$5,087	$428

On-Road Heavy-Duty Vehicle (HDDV6)

GVWR (lbs): 19,501 - 26,000

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982	1983	1984	1985	1987	1988	1989	1990	1993	1995	1997	2003	2006	2007 +
6.000	1990	$13,946	$12,924	$12,048	$11,756	$11,464	$11,318	$11,172	$12,778	$12,632							
5.000	1991 - 1993	$16,702	$15,680	$14,804	$14,512	$14,220	$14,074	$13,928	$15,534	$15,388							
5.000	1994 - 1995	$16,770	$15,748	$14,872	$14,580	$14,288	$14,142	$13,996	$15,602	$15,456							
5.000	1996 - 1997	$16,838	$15,816	$14,940	$14,648	$14,356	$14,210	$14,065	$15,670	$15,524							
4.000	1998 - 2003	$19,485	$18,463	$17,587	$17,295	$17,003	$16,857	$16,711	$18,317	$18,171	$5,539						
2.375	2004 - 2007	$23,786	$22,764	$21,888	$21,596	$21,304	$21,158	$21,012	$22,618	$22,472	$9,840	$7,084	$7,016	$6,948	$4,301		
1.500	2007 +	$26,102	$25,080	$24,204	$23,912	$23,620	$23,474	$23,328	$24,934	$24,788	$12,156	$9,400	$9,332	$9,264	$6,617	$2,316	
0.500	2007 +	$28,748	$27,727	$26,851	$26,559	$26,267	$26,121	$25,975	$27,581	$27,435	$14,803	$12,047	$11,979	$11,910	$9,264	$4,963	
0.200	2007 +	$29,542	$28,521	$27,645	$27,353	$27,061	$26,915	$26,769	$28,375	$28,229	$15,597	$12,841	$12,773	$12,704	$10,058	$5,757	
0.000	2007 +	$30,072	$29,050	$28,174	$27,882	$27,590	$27,444	$27,298	$28,904	$28,758	$16,126	$13,370	$13,302	$13,234	$10,587	$6,286	$529

On-Road Heavy-Duty Vehicle (HDDV7)

GVWR (lbs): 26,001 - 33,000

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982	1983	1984	1985	1986 - 1987	1988 - 1989	1990	1991 - 1993	1994 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$13,200	$12,908	$12,324	$12,178	$11,886	$11,594	$11,448	$15,243						
5.000	1991 - 1993	$16,474	$16,182	$15,598	$15,452	$15,160	$14,868	$14,722	$18,518						
5.000	1994 - 1997	$16,406	$16,114	$15,530	$15,384	$15,092	$14,800	$14,654	$18,449						
4.000	1998 - 2003	$19,694	$19,402	$18,818	$18,672	$18,380	$18,088	$17,942	$21,737	$6,494					
2.375	2004 - 2007	$25,036	$24,745	$24,161	$24,015	$23,723	$23,431	$23,285	$27,080	$11,837	$8,563	$8,631	$5,343		
1.500	2007 +	$27,913	$27,621	$27,038	$26,892	$26,600	$26,308	$26,162	$29,957	$14,714	$11,440	$11,508	$8,220	$2,877	
0.500	2007 +	$31,201	$30,909	$30,326	$30,180	$29,888	$29,596	$29,450	$33,245	$18,002	$14,728	$14,796	$11,508	$6,165	
0.200	2007 +	$32,188	$31,896	$31,312	$31,166	$30,874	$30,582	$30,436	$34,232	$18,988	$15,714	$15,782	$12,494	$7,151	
0.000	2007 +	$32,845	$32,553	$31,970	$31,824	$31,532	$31,240	$31,094	$34,889	$19,646	$16,372	$16,440	$13,152	$7,809	$658

On-Road Heavy-Duty Vehicle (HDDBS)

School Bus

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980	1981	1982 - 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$628	$701	$774	$8,437	$8,583										
5.000	1991	$2,435	$2,508	$2,581	$10,245	$10,391										
5.000	1992	$2,231	$2,304	$2,377	$10,041	$10,187										
5.000	1993	$2,060	$2,133	$2,206	$9,870	$10,016										
5.000	1994	$1,855	$1,928	$2,001	$9,665	$9,811										
5.000	1995	$1,685	$1,758	$1,831	$9,495	$9,641										
5.000	1996 - 1997	$1,480	$1,553	$1,626	$9,290	$9,436										
4.000	1998 - 2003	$3,520	FALSE	$3,666	$11,330	$11,476	$2,892									
2.375	2004 - 2007	$6,834	$6,907	$6,980	$14,644	$14,790	$6,207	$4,399	$4,604	$4,774	$4,979	$5,149	$5,354	$3,314		
1.500	2007 +	$8,619	$8,692	$8,765	$16,429	$16,575	$7,991	$6,184	$6,388	$6,559	$6,763	$6,934	$7,139	$5,099	$1,785	
0.500	2007 +	$10,659	$10,732	$10,805	$18,468	$18,614	$10,031	$8,223	$8,428	$8,598	$8,803	$8,974	$9,178	$7,139	$3,824	
0.200	2007 +	$11,270	$11,343	$11,416	$19,080	$19,226	$10,643	$8,835	$9,040	$9,210	$9,415	$9,586	$9,790	$7,751	$4,436	
0.000	2007 +	$11,678	$11,751	$11,824	$19,488	$19,634	$11,051	$9,243	$9,448	$9,618	$9,823	$9,993	$10,198	$8,158	$4,844	$408

On-Road Heavy-Duty Vehicle (HDDBT)

Transit or Urban Bus

7-year Activity Life

Please read the instructions provided on a separate sheet before using this table.

Replacement (new) Engine Certified NO_x Emissions (g/bhp-hr) *If between the listed amounts, use the higher rate*	Replacement (new) Engine Emissions Model Year	Engine Being Replaced Emissions Model Year: 1980 or earlier	1981	1982 - 1987	1988 - 1989	1990	1991 - 1992	1993 - 1995	1996 - 1997	1998 - 2003	2004 - 2006	2007 +
6.000	1990	$16,896	$19,451	$20,984	$44,997							
5.000	1991 - 1992	$26,470	$29,025	$30,558	$54,571							
5.000	1993 - 1995	$26,351	$28,906	$30,438	$54,452							
5.000	1996 - 1997	$26,232	$28,786	$30,319	$54,333							
4.000	1998 - 2003	$35,853	$38,408	$39,941	$63,954	$18,957						
2.375	2004 - 2007	$51,489	$54,043	$55,576	$79,590	$34,592	$25,018	$25,138	$25,257	$15,635		
1.500	2007 +	$59,908	$62,462	$63,995	$88,009	$43,011	$33,437	$33,557	$33,676	$24,054	$8,419	
0.500	2007 +	$69,529	$72,084	$73,617	$97,630	$52,633	$43,059	$43,178	$43,298	$33,676	$18,041	
0.200	2007 +	$72,416	$74,970	$76,503	$100,517	$55,519	$45,945	$46,065	$46,184	$36,562	$20,927	
0.000	2007 +	$74,340	$76,895	$78,427	$102,441	$57,444	$47,870	$47,989	$48,108	$38,487	$22,851	$1,924

APPENDIX E: 5-YEAR ACTIVITY LIFE NON-ROAD DIESEL ELIGIBLE MODEL YEARS, HORSEPOWER RANGES, AND MAXIMUM REBATE GRANT AMOUNTS

Non-Road Agricultural Tractor
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,499				$4,649				$6,524				
4.655	$2,029	$1,666			$5,537	$2,999			$7,770	$4,208			
4.560	$2,105	$1,742			$5,664	$3,126			$7,948	$4,387			
3.325	$3,089	$2,727	$1,590		$7,314	$4,776	$2,665		$10,263	$6,702	$3,740		
2.850	$3,468	$3,105	$1,969		$7,949	$5,410	$3,300		$11,154	$7,592	$4,630		
2.500	$3,747	$3,384	$2,248		$8,416	$5,878	$3,767		$11,810	$8,248	$5,286		
2.000	$4,146	$3,783	$2,647	$1,056	$9,084	$6,546	$4,435	$1,770	$12,747	$9,185	$6,224	$2,484	
1.500	$4,544	$4,182	$3,045	$1,455	$9,752	$7,214	$5,103	$2,438	$13,684	$10,123	$7,161	$3,421	
1.000	$4,943	$4,580	$3,444	$1,854	$10,420	$7,882	$5,771	$3,106	$14,622	$11,060	$8,098	$4,358	
0.300	$5,501	$5,138	$4,002	$2,412	$11,355	$8,817	$6,706	$4,041	$15,934	$12,372	$9,410	$5,671	
0.000	$5,740	$5,377	$4,241	$2,651	$11,756	$9,218	$7,107	$4,442	$16,496	$12,935	$9,973	$6,233	$562

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$7,675					$12,256					$25,182				
6.745	$8,133					$13,047					$26,683				
5.320	$12,339					$20,324					$40,485				
4.655	$14,302	$6,627				$23,720	$11,464				$46,926	$21,744			
4.560	$14,583	$6,908				$24,205	$11,950				$47,846	$22,664			
3.325	$18,228	$10,553	$3,926			$30,512	$18,256	$6,792			$59,807	$34,625	$11,961		
2.850	$19,630	$11,955	$5,328			$32,938	$20,682	$9,217			$64,408	$39,226	$16,562		
2.500	$20,664	$12,989	$6,361			$34,725	$22,469	$11,005			$67,798	$42,616	$19,952		
2.000	$22,140	$14,465	$7,837	$2,509		$37,278	$25,023	$13,558	$4,341		$72,640	$47,458	$24,795	$8,233	
1.500	$23,616	$15,940	$9,313	$3,985		$39,832	$27,576	$16,111	$6,894		$77,483	$52,301	$29,637	$13,075	
1.000	$25,091	$17,416	$10,789	$5,461		$42,385	$30,129	$18,665	$9,447		$82,326	$57,144	$34,480	$17,918	
0.300	$27,158	$19,483	$12,856	$7,527		$45,960	$33,704	$22,239	$13,022		$89,105	$63,923	$41,260	$24,698	
0.000	$28,043	$20,368	$13,741	$8,413	$886	$47,492	$35,236	$23,771	$14,554	$1,532	$92,011	$66,829	$44,165	$27,603	$2,906

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$36,334				
6.900	$40,694				
6.745	$42,946				
5.320	$63,657				
4.655	$73,321	$32,628			
4.560	$74,702	$34,008			
3.325	$92,651	$51,957	$17,949		
2.850	$99,554	$58,860	$24,852		
2.500	$104,641	$63,947	$29,939		
2.000	$111,908	$71,214	$37,206	$12,353	
1.500	$119,174	$78,481	$44,472	$19,620	
1.000	$126,441	$85,747	$51,739	$26,887	
0.300	$136,614	$95,921	$61,913	$37,060	
0.000	$140,974	$100,281	$66,273	$41,420	$4,360

Non-Road Combine
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$905				$2,808				$3,940				
4.655	$1,225	$1,006			$3,344	$1,811			$4,693	$2,542			
4.560	$1,271	$1,052			$3,421	$1,888			$4,800	$2,649			
3.325	$1,866	$1,647	$961		$4,417	$2,884	$1,610		$6,199	$4,047	$2,259		
2.850	$2,094	$1,875	$1,189		$4,801	$3,268	$1,993		$6,736	$4,585	$2,796		
2.500	$2,263	$2,044	$1,358		$5,083	$3,550	$2,275		$7,133	$4,981	$3,193		
2.000	$2,504	$2,285	$1,599	$638	$5,486	$3,953	$2,679	$1,069	$7,699	$5,548	$3,759	$1,500	
1.500	$2,744	$2,525	$1,839	$879	$5,890	$4,357	$3,082	$1,472	$8,265	$6,114	$4,325	$2,066	
1.000	$2,985	$2,766	$2,080	$1,119	$6,293	$4,760	$3,485	$1,876	$8,831	$6,680	$4,891	$2,632	
0.300	$3,322	$3,103	$2,417	$1,457	$6,858	$5,325	$4,050	$2,441	$9,623	$7,472	$5,683	$3,425	
0.000	$3,467	$3,248	$2,562	$1,601	$7,100	$5,567	$4,292	$2,683	$9,963	$7,812	$6,023	$3,764	$340

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$4,635					$7,402					$15,209				
6.745	$4,912					$7,880					$16,115				
5.320	$7,452					$12,275					$24,451				
4.655	$8,638	$4,002				$14,326	$6,924				$28,341	$13,132			
4.560	$8,807	$4,172				$14,619	$7,217				$28,896	$13,688			
3.325	$11,009	$6,374	$2,371			$18,428	$11,026	$4,102			$36,120	$20,912	$7,224		
2.850	$11,856	$7,220	$3,218			$19,893	$12,491	$5,567			$38,899	$23,690	$10,003		
2.500	$12,480	$7,844	$3,842			$20,972	$13,570	$6,646			$40,946	$25,738	$12,050		
2.000	$13,371	$8,736	$4,733	$1,515		$22,514	$15,112	$8,188	$2,622		$43,871	$28,662	$14,975	$4,972	
1.500	$14,263	$9,627	$5,625	$2,407		$24,056	$16,654	$9,730	$4,164		$46,796	$31,587	$17,899	$7,897	
1.000	$15,154	$10,519	$6,516	$3,298		$25,598	$18,196	$11,273	$5,706		$49,720	$34,512	$20,824	$10,821	
0.300	$16,402	$11,767	$7,764	$4,546		$27,757	$20,355	$13,431	$7,865		$53,815	$38,606	$24,919	$14,916	
0.000	$16,937	$12,301	$8,299	$5,081	$535	$28,683	$21,281	$14,357	$8,790	$925	$55,570	$40,361	$26,674	$16,671	$1,755

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$21,944				
6.900	$24,577				
6.745	$25,937				
5.320	$38,445				
4.655	$44,282	$19,705			
4.560	$45,116	$20,539			
3.325	$55,956	$31,379	$10,840		
2.850	$60,125	$35,549	$15,009		
2.500	$63,198	$38,621	$18,082		
2.000	$67,586	$43,009	$22,470	$7,461	
1.500	$71,975	$47,398	$26,859	$11,850	
1.000	$76,364	$51,787	$31,248	$16,238	
0.300	$82,508	$57,931	$37,392	$22,382	
0.000	$85,141	$60,564	$40,025	$25,016	$2,633

Non-Road Crane
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,798				$5,577				$7,826				
4.655	$2,434	$1,999			$6,643	$3,598			$9,322	$5,049			
4.560	$2,525	$2,090			$6,795	$3,750			$9,535	$5,262			
3.325	$3,706	$3,271	$1,908		$8,775	$5,729	$3,197		$12,313	$8,040	$4,487		
2.850	$4,160	$3,725	$2,362		$9,536	$6,491	$3,959		$13,381	$9,108	$5,555		
2.500	$4,495	$4,060	$2,697		$10,097	$7,052	$4,519		$14,168	$9,895	$6,342		
2.000	$4,973	$4,538	$3,175	$1,267	$10,898	$7,853	$5,321	$2,124	$15,292	$11,020	$7,466	$2,980	
1.500	$5,452	$5,016	$3,654	$1,745	$11,699	$8,654	$6,122	$2,925	$16,417	$12,144	$8,591	$4,104	
1.000	$5,930	$5,495	$4,132	$2,224	$12,501	$9,456	$6,923	$3,726	$17,541	$13,268	$9,715	$5,229	
0.300	$6,599	$6,164	$4,801	$2,893	$13,623	$10,577	$8,045	$4,848	$19,115	$14,843	$11,289	$6,803	
0.000	$6,886	$6,451	$5,088	$3,180	$14,103	$11,058	$8,526	$5,329	$19,790	$15,517	$11,964	$7,478	$675

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$9,207					$14,703					$30,210				
6.745	$9,756					$15,653					$32,011				
5.320	$14,803					$24,383					$48,568				
4.655	$17,158	$7,950				$28,456	$13,753				$56,295	$26,085			
4.560	$17,494	$8,287				$29,038	$14,335				$57,399	$27,189			
3.325	$21,868	$12,660	$4,710			$36,604	$21,901	$8,148			$71,749	$41,539	$14,350		
2.850	$23,550	$14,342	$6,392			$39,514	$24,811	$11,058			$77,268	$47,058	$19,869		
2.500	$24,789	$15,582	$7,632			$41,659	$26,956	$13,202			$81,334	$51,125	$23,936		
2.000	$26,560	$17,353	$9,402	$3,010		$44,722	$30,019	$16,265	$5,207		$87,144	$56,934	$29,745	$9,876	
1.500	$28,331	$19,123	$11,173	$4,781		$47,785	$33,082	$19,328	$8,270		$92,954	$62,744	$35,555	$15,686	
1.000	$30,101	$20,894	$12,944	$6,551		$50,848	$36,145	$22,391	$11,334		$98,763	$68,553	$41,364	$21,496	
0.300	$32,580	$23,373	$15,423	$9,030		$55,136	$40,433	$26,680	$15,622		$106,897	$76,687	$49,498	$29,629	
0.000	$33,643	$24,435	$16,485	$10,093	$1,062	$56,974	$42,271	$28,518	$17,460	$1,838	$110,383	$80,173	$52,984	$33,115	$3,486

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$43,588				
6.900	$48,819				
6.745	$51,521				
5.320	$76,367				
4.655	$87,961	$39,142			
4.560	$89,617	$40,799			
3.325	$111,150	$62,331	$21,533		
2.850	$119,432	$70,613	$29,814		
2.500	$125,534	$76,715	$35,917		
2.000	$134,252	$85,433	$44,634	$14,820	
1.500	$142,969	$94,151	$53,352	$23,538	
1.000	$151,687	$102,868	$62,070	$32,255	
0.300	$163,892	$115,073	$74,274	$44,460	
0.000	$169,122	$120,303	$79,505	$49,691	$5,231

Non-Road Crawler Tractor
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$787				$2,441				$3,425				
4.655	$1,065	$875			$2,907	$1,575			$4,079	$2,209			
4.560	$1,105	$915			$2,974	$1,641			$4,173	$2,303			
3.325	$1,622	$1,431	$835		$3,840	$2,507	$1,399		$5,388	$3,518	$1,963		
2.850	$1,821	$1,630	$1,034		$4,173	$2,840	$1,732		$5,856	$3,986	$2,431		
2.500	$1,967	$1,777	$1,180		$4,419	$3,086	$1,978		$6,200	$4,330	$2,775		
2.000	$2,176	$1,986	$1,390	$555	$4,769	$3,437	$2,328	$929	$6,692	$4,822	$3,267	$1,304	
1.500	$2,386	$2,195	$1,599	$764	$5,120	$3,787	$2,679	$1,280	$7,184	$5,314	$3,759	$1,796	
1.000	$2,595	$2,405	$1,808	$973	$5,471	$4,138	$3,030	$1,631	$7,676	$5,807	$4,252	$2,288	
0.300	$2,888	$2,698	$2,101	$1,266	$5,962	$4,629	$3,521	$2,122	$8,365	$6,495	$4,940	$2,977	
0.000	$3,014	$2,823	$2,227	$1,392	$6,172	$4,839	$3,731	$2,332	$8,661	$6,791	$5,236	$3,272	$295

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$4,029					$6,434					$13,221				
6.745	$4,270					$6,850					$14,009				
5.320	$6,478					$10,670					$21,255				
4.655	$7,509	$3,479				$12,453	$6,019				$24,636	$11,415			
4.560	$7,656	$3,626				$12,708	$6,274				$25,119	$11,898			
3.325	$9,570	$5,540	$2,061			$16,019	$9,585	$3,566			$31,399	$18,178	$6,280		
2.850	$10,306	$6,277	$2,797			$17,292	$10,858	$4,839			$33,814	$20,594	$8,695		
2.500	$10,848	$6,819	$3,340			$18,231	$11,796	$5,778			$35,594	$22,373	$10,475		
2.000	$11,623	$7,594	$4,115	$1,317		$19,571	$13,137	$7,118	$2,279		$38,136	$24,916	$13,017	$4,322	
1.500	$12,398	$8,369	$4,890	$2,092		$20,912	$14,477	$8,459	$3,619		$40,679	$27,458	$15,560	$6,865	
1.000	$13,173	$9,144	$5,664	$2,867		$22,252	$15,818	$9,799	$4,960		$43,221	$30,000	$18,102	$9,407	
0.300	$14,258	$10,228	$6,749	$3,952		$24,129	$17,695	$11,676	$6,837		$46,780	$33,560	$21,661	$12,966	
0.000	$14,723	$10,693	$7,214	$4,417	$465	$24,933	$18,499	$12,480	$7,641	$804	$48,306	$35,085	$23,187	$14,492	$1,525

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$19,075				
6.900	$21,364				
6.745	$22,547				
5.320	$33,420				
4.655	$38,494	$17,129			
4.560	$39,219	$17,854			
3.325	$48,642	$27,277	$9,423		
2.850	$52,266	$30,902	$13,047		
2.500	$54,936	$33,572	$15,718		
2.000	$58,751	$37,387	$19,533	$6,486	
1.500	$62,567	$41,202	$23,348	$10,301	
1.000	$66,382	$45,017	$27,163	$14,116	
0.300	$71,723	$50,358	$32,504	$19,457	
0.000	$74,012	$52,647	$34,793	$21,746	$2,289

Non-Road Crushing-Processing Equipment
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,378				$4,275				$5,999				
4.655	$1,866	$1,532			$5,092	$2,758			$7,146	$3,870			
4.560	$1,936	$1,602			$5,209	$2,875			$7,310	$4,034			
3.325	$2,841	$2,507	$1,463		$6,726	$4,392	$2,451		$9,439	$6,163	$3,439		
2.850	$3,189	$2,856	$1,811		$7,310	$4,976	$3,035		$10,258	$6,982	$4,258		
2.500	$3,446	$3,112	$2,068		$7,740	$5,406	$3,465		$10,861	$7,585	$4,862		
2.000	$3,813	$3,479	$2,434	$971	$8,354	$6,020	$4,079	$1,628	$11,723	$8,447	$5,724	$2,284	
1.500	$4,179	$3,846	$2,801	$1,338	$8,969	$6,634	$4,693	$2,242	$12,585	$9,309	$6,586	$3,146	
1.000	$4,546	$4,212	$3,167	$1,705	$9,583	$7,249	$5,307	$2,856	$13,447	$10,171	$7,448	$4,008	
0.300	$5,059	$4,725	$3,681	$2,218	$10,443	$8,109	$6,167	$3,716	$14,654	$11,378	$8,654	$5,215	
0.000	$5,279	$4,945	$3,901	$2,438	$10,811	$8,477	$6,536	$4,085	$15,171	$11,895	$9,171	$5,732	$517

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$7,058					$11,271					$23,159				
6.745	$7,479					$11,999					$24,539				
5.320	$11,348					$18,691					$37,232				
4.655	$13,153	$6,095				$21,814	$10,543				$43,155	$19,997			
4.560	$13,411	$6,353				$22,261	$10,989				$44,001	$20,843			
3.325	$16,764	$9,705	$3,611			$28,060	$16,789	$6,246			$55,002	$31,843	$11,000		
2.850	$18,053	$10,995	$4,900			$30,291	$19,020	$8,477			$59,232	$36,074	$15,231		
2.500	$19,003	$11,945	$5,850			$31,935	$20,664	$10,121			$62,350	$39,191	$18,349		
2.000	$20,361	$13,302	$7,208	$2,308		$34,283	$23,012	$12,469	$3,992		$66,803	$43,645	$22,802	$7,571	
1.500	$21,718	$14,660	$8,565	$3,665		$36,631	$25,360	$14,817	$6,340		$71,257	$48,099	$27,256	$12,025	
1.000	$23,075	$16,017	$9,922	$5,022		$38,979	$27,708	$17,165	$8,688		$75,711	$52,552	$31,709	$16,478	
0.300	$24,976	$17,917	$11,823	$6,923		$42,267	$30,996	$20,452	$11,976		$81,946	$58,787	$37,944	$22,713	
0.000	$25,790	$18,732	$12,637	$7,737	$814	$43,676	$32,405	$21,861	$13,384	$1,409	$84,618	$61,459	$40,617	$25,385	$2,672

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$33,414				
6.900	$37,424				
6.745	$39,496				
5.320	$58,542				
4.655	$67,430	$30,006			
4.560	$68,699	$31,276			
3.325	$85,206	$47,782	$16,507		
2.850	$91,555	$54,131	$22,855		
2.500	$96,233	$58,809	$27,533		
2.000	$102,916	$65,492	$34,216	$11,361	
1.500	$109,598	$72,175	$40,899	$18,044	
1.000	$116,281	$78,857	$47,582	$24,726	
0.300	$125,637	$88,213	$56,938	$34,082	
0.000	$129,647	$92,223	$60,947	$38,092	$4,010

Non-Road Excavator

5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,367				$7,340				$10,300				
4.655	$3,204	$2,631			$8,743	$4,735			$12,269	$6,645			
4.560	$3,323	$2,750			$8,944	$4,936			$12,550	$6,926			
3.325	$4,878	$4,305	$2,511		$11,549	$7,541	$4,208		$16,205	$10,582	$5,905		
2.850	$5,476	$4,903	$3,109		$12,551	$8,543	$5,210		$17,611	$11,988	$7,311		
2.500	$5,916	$5,344	$3,550		$13,289	$9,281	$5,948		$18,647	$13,023	$8,347		
2.000	$6,546	$5,973	$4,179	$1,668	$14,343	$10,336	$7,003	$2,795	$20,127	$14,503	$9,827	$3,922	
1.500	$7,175	$6,602	$4,809	$2,297	$15,398	$11,390	$8,058	$3,850	$21,607	$15,983	$11,307	$5,402	
1.000	$7,805	$7,232	$5,438	$2,927	$16,453	$12,445	$9,112	$4,904	$23,087	$17,463	$12,787	$6,882	
0.300	$8,686	$8,113	$6,319	$3,808	$17,929	$13,922	$10,589	$6,381	$25,159	$19,535	$14,859	$8,954	
0.000	$9,063	$8,491	$6,697	$4,186	$18,562	$14,554	$11,222	$7,014	$26,047	$20,423	$15,747	$9,842	$888

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,118					$19,351					$39,761				
6.745	$12,841					$20,601					$42,131				
5.320	$19,483					$32,091					$63,923				
4.655	$22,582	$10,464				$37,453	$18,102				$74,093	$34,332			
4.560	$23,025	$10,907				$38,219	$18,868				$75,546	$35,785			
3.325	$28,781	$16,663	$6,199			$48,177	$28,826	$10,724			$94,432	$54,671	$18,886		
2.850	$30,995	$18,877	$8,413			$52,007	$32,656	$14,554			$101,696	$61,935	$26,151		
2.500	$32,627	$20,508	$10,044			$54,829	$35,478	$17,376			$107,049	$67,288	$31,503		
2.000	$34,957	$22,839	$12,375	$3,962		$58,861	$39,509	$21,408	$6,854		$114,695	$74,934	$39,149	$12,999	
1.500	$37,288	$25,169	$14,705	$6,292		$62,892	$43,541	$25,439	$10,885		$122,342	$82,581	$46,796	$20,645	
1.000	$39,618	$27,500	$17,036	$8,623		$66,924	$47,572	$29,471	$14,917		$129,988	$90,227	$54,442	$28,291	
0.300	$42,881	$30,762	$20,298	$11,885		$72,568	$53,217	$35,115	$20,561		$140,693	$100,932	$65,147	$38,996	
0.000	$44,279	$32,161	$21,697	$13,284	$1,398	$74,987	$55,635	$37,534	$22,980	$2,419	$145,281	$105,520	$69,735	$43,584	$4,588

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$57,369				
6.900	$64,253				
6.745	$67,810				
5.320	$100,510				
4.655	$115,770	$51,517			
4.560	$117,950	$53,697			
3.325	$146,291	$82,038	$28,340		
2.850	$157,191	$92,938	$39,240		
2.500	$165,222	$100,969	$47,272		
2.000	$176,696	$112,443	$58,746	$19,505	
1.500	$188,170	$123,917	$70,220	$30,979	
1.000	$199,644	$135,391	$81,693	$42,453	
0.300	$215,707	$151,454	$97,757	$58,516	
0.000	$222,591	$158,338	$104,641	$65,401	$6,884

Non-Road Forklift
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,364				$10,436				$14,644				
4.655	$4,555	$3,740			$12,430	$6,732			$17,442	$9,447			
4.560	$4,725	$3,910			$12,715	$7,017			$17,842	$9,847			
3.325	$6,935	$6,120	$3,570		$16,418	$10,721	$5,983		$23,039	$15,043	$8,395		
2.850	$7,785	$6,970	$4,420		$17,843	$12,145	$7,407		$25,037	$17,042	$10,394		
2.500	$8,411	$7,597	$5,047		$18,892	$13,195	$8,457		$26,510	$18,515	$11,866		
2.000	$9,306	$8,492	$5,941	$2,371	$20,392	$14,694	$9,956	$3,973	$28,614	$20,619	$13,970	$5,576	
1.500	$10,201	$9,386	$6,836	$3,266	$21,891	$16,193	$11,455	$5,473	$30,718	$22,723	$16,074	$7,680	
1.000	$11,095	$10,281	$7,731	$4,161	$23,390	$17,693	$12,955	$6,972	$32,822	$24,827	$18,178	$9,784	
0.300	$12,348	$11,534	$8,984	$5,414	$25,490	$19,792	$15,054	$9,071	$35,768	$27,773	$21,124	$12,729	
0.000	$12,885	$12,071	$9,521	$5,950	$26,389	$20,692	$15,953	$9,971	$37,030	$29,035	$22,386	$13,991	$1,262

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$17,228					$27,511					$56,527				
6.745	$18,256					$29,288					$59,897				
5.320	$27,698					$45,623					$90,878				
4.655	$32,105	$14,876				$53,246	$25,735				$105,336	$48,809			
4.560	$32,734	$15,506				$54,335	$26,824				$107,401	$50,874			
3.325	$40,918	$23,689	$8,813			$68,492	$40,980	$15,246			$134,251	$77,725	$26,850		
2.850	$44,065	$26,837	$11,961			$73,937	$46,425	$20,691			$144,578	$88,052	$37,177		
2.500	$46,384	$29,156	$14,280			$77,949	$50,437	$24,703			$152,188	$95,661	$44,787		
2.000	$49,697	$32,469	$17,593	$5,632		$83,680	$56,169	$30,434	$9,744		$163,058	$106,531	$55,657	$18,480	
1.500	$53,011	$35,782	$20,906	$8,946		$89,412	$61,901	$36,166	$15,475		$173,929	$117,402	$66,528	$29,351	
1.000	$56,324	$39,095	$24,219	$12,259		$95,143	$67,632	$41,897	$21,207		$184,800	$128,273	$77,398	$40,221	
0.300	$60,962	$43,734	$28,858	$16,897		$103,168	$75,656	$49,922	$29,231		$200,018	$143,491	$92,617	$55,440	
0.000	$62,950	$45,722	$30,846	$18,885	$1,988	$106,606	$79,095	$53,361	$32,670	$3,439	$206,541	$150,014	$99,140	$61,962	$6,522

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$81,559				
6.900	$91,347				
6.745	$96,403				
5.320	$142,892				
4.655	$164,587	$73,240			
4.560	$167,686	$76,340			
3.325	$207,977	$116,630	$40,290		
2.850	$223,473	$132,126	$55,787		
2.500	$234,891	$143,545	$67,205		
2.000	$251,203	$159,856	$83,517	$27,730	
1.500	$267,515	$176,168	$99,829	$44,042	
1.000	$283,827	$192,480	$116,141	$60,354	
0.300	$306,663	$215,317	$138,977	$83,191	
0.000	$316,451	$225,104	$148,764	$92,978	$9,787

Non-Road Grader
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,367				$7,340				$10,300				
4.655	$3,204	$2,631			$8,743	$4,735			$12,269	$6,645			
4.560	$3,323	$2,750			$8,944	$4,936			$12,550	$6,926			
3.325	$4,878	$4,305	$2,511		$11,549	$7,541	$4,208		$16,205	$10,582	$5,905		
2.850	$5,476	$4,903	$3,109		$12,551	$8,543	$5,210		$17,611	$11,988	$7,311		
2.500	$5,916	$5,344	$3,550		$13,289	$9,281	$5,948		$18,647	$13,023	$8,347		
2.000	$6,546	$5,973	$4,179	$1,668	$14,343	$10,336	$7,003	$2,795	$20,127	$14,503	$9,827	$3,922	
1.500	$7,175	$6,602	$4,809	$2,297	$15,398	$11,390	$8,058	$3,850	$21,607	$15,983	$11,307	$5,402	
1.000	$7,805	$7,232	$5,438	$2,927	$16,453	$12,445	$9,112	$4,904	$23,087	$17,463	$12,787	$6,882	
0.300	$8,686	$8,113	$6,319	$3,808	$17,929	$13,922	$10,589	$6,381	$25,159	$19,535	$14,859	$8,954	
0.000	$9,063	$8,491	$6,697	$4,186	$18,562	$14,554	$11,222	$7,014	$26,047	$20,423	$15,747	$9,842	$888

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,118					$19,351					$39,761				
6.745	$12,841					$20,601					$42,131				
5.320	$19,483					$32,091					$63,923				
4.655	$22,582	$10,464				$37,453	$18,102				$74,093	$34,332			
4.560	$23,025	$10,907				$38,219	$18,868				$75,546	$35,785			
3.325	$28,781	$16,663	$6,199			$48,177	$28,826	$10,724			$94,432	$54,671	$18,886		
2.850	$30,995	$18,877	$8,413			$52,007	$32,656	$14,554			$101,696	$61,935	$26,151		
2.500	$32,627	$20,508	$10,044			$54,829	$35,478	$17,376			$107,049	$67,288	$31,503		
2.000	$34,957	$22,839	$12,375	$3,962		$58,861	$39,509	$21,408	$6,854		$114,695	$74,934	$39,149	$12,999	
1.500	$37,288	$25,169	$14,705	$6,292		$62,892	$43,541	$25,439	$10,885		$122,342	$82,581	$46,796	$20,645	
1.000	$39,618	$27,500	$17,036	$8,623		$66,924	$47,572	$29,471	$14,917		$129,988	$90,227	$54,442	$28,291	
0.300	$42,881	$30,762	$20,298	$11,885		$72,568	$53,217	$35,115	$20,561		$140,693	$100,932	$65,147	$38,996	
0.000	$44,279	$32,161	$21,697	$13,284	$1,398	$74,987	$55,635	$37,534	$22,980	$2,419	$145,281	$105,520	$69,735	$43,584	$4,588

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$57,369				
6.900	$64,253				
6.745	$67,810				
5.320	$100,510				
4.655	$115,770	$51,517			
4.560	$117,950	$53,697			
3.325	$146,291	$82,038	$28,340		
2.850	$157,191	$92,938	$39,240		
2.500	$165,222	$100,969	$47,272		
2.000	$176,696	$112,443	$58,746	$19,505	
1.500	$188,170	$123,917	$70,220	$30,979	
1.000	$199,644	$135,391	$81,693	$42,453	
0.300	$215,707	$151,454	$97,757	$58,516	
0.000	$222,591	$158,338	$104,641	$65,401	$6,884

Non-Road Off-Highway Tractor
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,692				$5,248				$7,365				
4.655	$2,291	$1,881			$6,251	$3,386			$8,772	$4,751			
4.560	$2,376	$1,967			$6,395	$3,529			$8,973	$4,952			
3.325	$3,488	$3,078	$1,796		$8,257	$5,392	$3,009		$11,587	$7,566	$4,222		
2.850	$3,915	$3,506	$2,223		$8,974	$6,108	$3,725		$12,592	$8,571	$5,227		
2.500	$4,230	$3,821	$2,538		$9,502	$6,636	$4,253		$13,333	$9,312	$5,968		
2.000	$4,680	$4,271	$2,988	$1,193	$10,256	$7,390	$5,007	$1,998	$14,391	$10,370	$7,026	$2,804	
1.500	$5,130	$4,721	$3,438	$1,643	$11,010	$8,144	$5,761	$2,752	$15,449	$11,428	$8,084	$3,862	
1.000	$5,580	$5,171	$3,888	$2,093	$11,764	$8,898	$6,515	$3,507	$16,507	$12,486	$9,142	$4,920	
0.300	$6,210	$5,801	$4,518	$2,723	$12,820	$9,954	$7,571	$4,562	$17,989	$13,968	$10,624	$6,402	
0.000	$6,480	$6,071	$4,788	$2,993	$13,272	$10,406	$8,023	$5,015	$18,624	$14,603	$11,259	$7,037	$635

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$8,665					$13,836					$28,429				
6.745	$9,181					$14,730					$30,124				
5.320	$13,930					$22,945					$45,705				
4.655	$16,146	$7,482				$26,779	$12,943				$52,977	$24,547			
4.560	$16,463	$7,798				$27,327	$13,490				$54,015	$25,586			
3.325	$20,579	$11,914	$4,432			$34,447	$20,610	$7,668			$67,519	$39,090	$13,504		
2.850	$22,162	$13,497	$6,015			$37,185	$23,349	$10,406			$72,713	$44,284	$18,698		
2.500	$23,328	$14,663	$7,182			$39,203	$25,367	$12,424			$76,540	$48,111	$22,525		
2.000	$24,994	$16,330	$8,848	$2,833		$42,085	$28,249	$15,306	$4,900		$82,007	$53,578	$27,992	$9,294	
1.500	$26,661	$17,996	$10,514	$4,499		$44,968	$31,132	$18,189	$7,783		$87,474	$59,045	$33,459	$14,761	
1.000	$28,327	$19,662	$12,181	$6,165		$47,851	$34,014	$21,072	$10,665		$92,941	$64,512	$38,926	$20,228	
0.300	$30,660	$21,995	$14,513	$8,498		$51,886	$38,050	$25,107	$14,701		$100,595	$72,166	$46,580	$27,882	
0.000	$31,660	$22,995	$15,513	$9,498	$1,000	$53,616	$39,779	$26,837	$16,431	$1,730	$103,876	$75,447	$49,860	$31,163	$3,280

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$41,019				
6.900	$45,941				
6.745	$48,484				
5.320	$71,865				
4.655	$82,776	$36,835			
4.560	$84,335	$38,394			
3.325	$104,598	$58,657	$20,263		
2.850	$112,391	$66,450	$28,057		
2.500	$118,134	$72,193	$33,799		
2.000	$126,338	$80,397	$42,003	$13,946	
1.500	$134,542	$88,601	$50,207	$22,150	
1.000	$142,745	$96,804	$58,411	$30,354	
0.300	$154,231	$108,290	$69,896	$41,839	
0.000	$159,153	$113,212	$74,818	$46,761	$4,922

Non-Road Off-Highway Truck
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,794				$8,668				$12,163				
4.655	$3,783	$3,107			$10,324	$5,592			$14,487	$7,847			
4.560	$3,924	$3,248			$10,561	$5,828			$14,819	$8,179			
3.325	$5,760	$5,084	$2,965		$13,637	$8,905	$4,969		$19,136	$12,495	$6,973		
2.850	$6,466	$5,790	$3,671		$14,820	$10,088	$6,152		$20,796	$14,155	$8,633		
2.500	$6,986	$6,310	$4,192		$15,692	$10,959	$7,024		$22,019	$15,379	$9,856		
2.000	$7,729	$7,053	$4,935	$1,970	$16,937	$12,205	$8,269	$3,300	$23,767	$17,126	$11,604	$4,631	
1.500	$8,473	$7,796	$5,678	$2,713	$18,183	$13,450	$9,515	$4,546	$25,514	$18,874	$13,351	$6,379	
1.000	$9,216	$8,540	$6,421	$3,456	$19,428	$14,696	$10,760	$5,791	$27,262	$20,621	$15,099	$8,126	
0.300	$10,256	$9,580	$7,462	$4,496	$21,172	$16,439	$12,504	$7,535	$29,709	$23,068	$17,546	$10,573	
0.000	$10,702	$10,026	$7,908	$4,942	$21,919	$17,186	$13,251	$8,282	$30,757	$24,116	$18,594	$11,621	$1,049

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$14,310					$22,851					$46,951				
6.745	$15,163					$24,327					$49,750				
5.320	$23,006					$37,894					$75,483				
4.655	$26,666	$12,356				$44,226	$21,375				$87,492	$40,540			
4.560	$27,189	$12,879				$45,130	$22,280				$89,207	$42,256			
3.325	$33,986	$19,676	$7,320			$56,889	$34,038	$12,663			$111,509	$64,558	$22,302		
2.850	$36,600	$22,290	$9,934			$61,412	$38,561	$17,186			$120,087	$73,135	$30,879		
2.500	$38,527	$24,217	$11,861			$64,744	$41,893	$20,518			$126,407	$79,456	$37,200		
2.000	$41,279	$26,969	$14,613	$4,678		$69,505	$46,654	$25,279	$8,093		$135,436	$88,485	$46,229	$15,349	
1.500	$44,030	$29,721	$17,365	$7,430		$74,265	$51,414	$30,039	$12,854		$144,465	$97,514	$55,258	$24,378	
1.000	$46,782	$32,472	$20,116	$10,182		$79,026	$56,175	$34,800	$17,614		$153,494	$106,543	$64,287	$33,408	
0.300	$50,635	$36,325	$23,969	$14,035		$85,691	$62,840	$41,465	$24,279		$166,135	$119,184	$76,928	$46,048	
0.000	$52,286	$37,976	$25,620	$15,686	$1,651	$88,547	$65,696	$44,321	$27,135	$2,856	$171,552	$124,601	$82,345	$51,466	$5,417

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$67,743				
6.900	$75,872				
6.745	$80,072				
5.320	$118,686				
4.655	$136,706	$60,833			
4.560	$139,280	$63,408			
3.325	$172,745	$96,873	$33,465		
2.850	$185,616	$109,744	$46,336		
2.500	$195,100	$119,228	$55,820		
2.000	$208,649	$132,776	$69,369	$23,033	
1.500	$222,197	$146,325	$82,918	$36,581	
1.000	$235,746	$159,874	$96,466	$50,130	
0.300	$254,714	$178,842	$115,434	$69,098	
0.000	$262,843	$186,971	$123,563	$77,227	$8,129

Non-Road Rough Terrain Forklift
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,732				$5,371				$7,536				
4.655	$2,344	$1,925			$6,397	$3,465			$8,977	$4,862			
4.560	$2,431	$2,012			$6,544	$3,611			$9,182	$5,068			
3.325	$3,569	$3,150	$1,837		$8,450	$5,517	$3,079		$11,857	$7,742	$4,320		
2.850	$4,006	$3,587	$2,275		$9,183	$6,250	$3,812		$12,886	$8,771	$5,349		
2.500	$4,329	$3,910	$2,597		$9,723	$6,791	$4,352		$13,644	$9,529	$6,107		
2.000	$4,789	$4,370	$3,058	$1,220	$10,495	$7,562	$5,124	$2,045	$14,726	$10,612	$7,190	$2,869	
1.500	$5,250	$4,831	$3,518	$1,681	$11,266	$8,334	$5,896	$2,817	$15,809	$11,694	$8,273	$3,952	
1.000	$5,710	$5,291	$3,979	$2,141	$12,038	$9,106	$6,667	$3,588	$16,892	$12,777	$9,356	$5,035	
0.300	$6,355	$5,936	$4,624	$2,786	$13,118	$10,186	$7,748	$4,669	$18,408	$14,293	$10,872	$6,551	
0.000	$6,631	$6,212	$4,900	$3,062	$13,581	$10,649	$8,211	$5,132	$19,058	$14,943	$11,521	$7,201	$650

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$8,867					$14,159					$29,092				
6.745	$9,395					$15,073					$30,826				
5.320	$14,255					$23,480					$46,771				
4.655	$16,523	$7,656				$27,403	$13,244				$54,211	$25,120			
4.560	$16,847	$7,980				$27,964	$13,805				$55,274	$26,183			
3.325	$21,058	$12,192	$4,536			$35,250	$21,091	$7,846			$69,093	$40,001	$13,819		
2.850	$22,678	$13,812	$6,156			$38,052	$23,893	$10,649			$74,408	$45,316	$19,133		
2.500	$23,872	$15,005	$7,349			$40,117	$25,958	$12,713			$78,324	$49,232	$23,050		
2.000	$25,577	$16,710	$9,054	$2,899		$43,066	$28,908	$15,663	$5,015		$83,919	$54,827	$28,644	$9,511	
1.500	$27,282	$18,415	$10,759	$4,604		$46,016	$31,857	$18,613	$7,964		$89,513	$60,421	$34,239	$15,105	
1.000	$28,987	$20,121	$12,465	$6,309		$48,966	$34,807	$21,563	$10,914		$95,108	$66,016	$39,833	$20,700	
0.300	$31,374	$22,508	$14,852	$8,696		$53,096	$38,937	$25,692	$15,044		$102,940	$73,848	$47,666	$28,532	
0.000	$32,398	$23,531	$15,875	$9,719	$1,023	$54,865	$40,707	$27,462	$16,814	$1,770	$106,297	$77,205	$51,023	$31,889	$3,357

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$41,975				
6.900	$47,012				
6.745	$49,614				
5.320	$73,540				
4.655	$84,705	$37,693			
4.560	$86,300	$39,289			
3.325	$107,036	$60,024	$20,736		
2.850	$115,011	$67,999	$28,711		
2.500	$120,888	$73,876	$34,587		
2.000	$129,283	$82,271	$42,982	$14,271	
1.500	$137,678	$90,666	$51,377	$22,666	
1.000	$146,073	$99,061	$59,772	$31,061	
0.300	$157,826	$110,814	$71,525	$42,814	
0.000	$162,863	$115,851	$76,562	$47,851	$5,037

Non-Road Rubber Tire Loader
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,367				$7,340				$10,300				
4.655	$3,204	$2,631			$8,743	$4,735			$12,269	$6,645			
4.560	$3,323	$2,750			$8,944	$4,936			$12,550	$6,926			
3.325	$4,878	$4,305	$2,511		$11,549	$7,541	$4,208		$16,205	$10,582	$5,905		
2.850	$5,476	$4,903	$3,109		$12,551	$8,543	$5,210		$17,611	$11,988	$7,311		
2.500	$5,916	$5,344	$3,550		$13,289	$9,281	$5,948		$18,647	$13,023	$8,347		
2.000	$6,546	$5,973	$4,179	$1,668	$14,343	$10,336	$7,003	$2,795	$20,127	$14,503	$9,827	$3,922	
1.500	$7,175	$6,602	$4,809	$2,297	$15,398	$11,390	$8,058	$3,850	$21,607	$15,983	$11,307	$5,402	
1.000	$7,805	$7,232	$5,438	$2,927	$16,453	$12,445	$9,112	$4,904	$23,087	$17,463	$12,787	$6,882	
0.300	$8,686	$8,113	$6,319	$3,808	$17,929	$13,922	$10,589	$6,381	$25,159	$19,535	$14,859	$8,954	
0.000	$9,063	$8,491	$6,697	$4,186	$18,562	$14,554	$11,222	$7,014	$26,047	$20,423	$15,747	$9,842	$888

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,118					$19,351					$39,761				
6.745	$12,841					$20,601					$42,131				
5.320	$19,483					$32,091					$63,923				
4.655	$22,582	$10,464				$37,453	$18,102				$74,093	$34,332			
4.560	$23,025	$10,907				$38,219	$18,868				$75,546	$35,785			
3.325	$28,781	$16,663	$6,199			$48,177	$28,826	$10,724			$94,432	$54,671	$18,886		
2.850	$30,995	$18,877	$8,413			$52,007	$32,656	$14,554			$101,696	$61,935	$26,151		
2.500	$32,627	$20,508	$10,044			$54,829	$35,478	$17,376			$107,049	$67,288	$31,503		
2.000	$34,957	$22,839	$12,375	$3,962		$58,861	$39,509	$21,408	$6,854		$114,695	$74,934	$39,149	$12,999	
1.500	$37,288	$25,169	$14,705	$6,292		$62,892	$43,541	$25,439	$10,885		$122,342	$82,581	$46,796	$20,645	
1.000	$39,618	$27,500	$17,036	$8,623		$66,924	$47,572	$29,471	$14,917		$129,988	$90,227	$54,442	$28,291	
0.300	$42,881	$30,762	$20,298	$11,885		$72,568	$53,217	$35,115	$20,561		$140,693	$100,932	$65,147	$38,996	
0.000	$44,279	$32,161	$21,697	$13,284	$1,398	$74,987	$55,635	$37,534	$22,980	$2,419	$145,281	$105,520	$69,735	$43,584	$4,588

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$57,369				
6.900	$64,253				
6.745	$67,810				
5.320	$100,510				
4.655	$115,770	$51,517			
4.560	$117,950	$53,697			
3.325	$146,291	$82,038	$28,340		
2.850	$157,191	$92,938	$39,240		
2.500	$165,222	$100,969	$47,272		
2.000	$176,696	$112,443	$58,746	$19,505	
1.500	$188,170	$123,917	$70,220	$30,979	
1.000	$199,644	$135,391	$81,693	$42,453	
0.300	$215,707	$151,454	$97,757	$58,516	
0.000	$222,591	$158,338	$104,641	$65,401	$6,884

Non-Road Skid Steer Loader
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$548				$1,698				$2,383				
4.655	$741	$609			$2,023	$1,096			$2,838	$1,537			
4.560	$769	$636			$2,069	$1,142			$2,903	$1,602			
3.325	$1,129	$996	$581		$2,672	$1,745	$974		$3,749	$2,448	$1,366		
2.850	$1,267	$1,134	$719		$2,904	$1,976	$1,205		$4,074	$2,773	$1,691		
2.500	$1,369	$1,236	$821		$3,074	$2,147	$1,376		$4,314	$3,013	$1,931		
2.000	$1,514	$1,382	$967	$386	$3,318	$2,391	$1,620	$647	$4,657	$3,355	$2,273	$907	
1.500	$1,660	$1,528	$1,113	$531	$3,562	$2,635	$1,864	$891	$4,999	$3,698	$2,616	$1,250	
1.000	$1,806	$1,673	$1,258	$677	$3,806	$2,879	$2,108	$1,135	$5,341	$4,040	$2,958	$1,592	
0.300	$2,009	$1,877	$1,462	$881	$4,148	$3,221	$2,450	$1,476	$5,821	$4,520	$3,438	$2,071	
0.000	$2,097	$1,964	$1,549	$968	$4,294	$3,367	$2,596	$1,623	$6,026	$4,725	$3,643	$2,277	$205

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$2,804					$4,477					$9,199				
6.745	$2,971					$4,766					$9,747				
5.320	$4,507					$7,424					$14,789				
4.655	$5,225	$2,421				$8,665	$4,188				$17,142	$7,943			
4.560	$5,327	$2,523				$8,842	$4,365				$17,478	$8,279			
3.325	$6,659	$3,855	$1,434			$11,146	$6,669	$2,481			$21,847	$12,649	$4,369		
2.850	$7,171	$4,367	$1,946			$12,032	$7,555	$3,367			$23,528	$14,329	$6,050		
2.500	$7,548	$4,745	$2,324			$12,685	$8,208	$4,020			$24,766	$15,567	$7,288		
2.000	$8,088	$5,284	$2,863	$917		$13,618	$9,141	$4,953	$1,586		$26,535	$17,336	$9,057	$3,007	
1.500	$8,627	$5,823	$3,402	$1,456		$14,551	$10,073	$5,885	$2,518		$28,304	$19,106	$10,826	$4,776	
1.000	$9,166	$6,362	$3,941	$1,995		$15,483	$11,006	$6,818	$3,451		$30,073	$20,875	$12,595	$6,545	
0.300	$9,921	$7,117	$4,696	$2,750		$16,789	$12,312	$8,124	$4,757		$32,550	$23,351	$15,072	$9,022	
0.000	$10,244	$7,441	$5,020	$3,073	$324	$17,349	$12,872	$8,684	$5,317	$560	$33,612	$24,413	$16,134	$10,083	$1,061

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$13,273				
6.900	$14,865				
6.745	$15,688				
5.320	$23,254				
4.655	$26,784	$11,919			
4.560	$27,289	$12,423			
3.325	$33,845	$18,980	$6,557		
2.850	$36,367	$21,502	$9,078		
2.500	$38,225	$23,360	$10,937		
2.000	$40,880	$26,014	$13,591	$4,513	
1.500	$43,534	$28,669	$16,246	$7,167	
1.000	$46,189	$31,323	$18,900	$9,822	
0.300	$49,905	$35,040	$22,617	$13,538	
0.000	$51,498	$36,632	$24,209	$15,131	$1,593

Terminal Tractor: Non-Road Certified Engines Only
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,487				$7,714				$10,824				
4.655	$3,366	$2,765			$9,188	$4,976			$12,892	$6,983			
4.560	$3,492	$2,890			$9,398	$5,187			$13,188	$7,278			
3.325	$5,126	$4,524	$2,639		$12,136	$7,924	$4,422		$17,029	$11,119	$6,205		
2.850	$5,754	$5,152	$3,267		$13,189	$8,977	$5,475		$18,507	$12,597	$7,683		
2.500	$6,217	$5,615	$3,730		$13,964	$9,753	$6,251		$19,595	$13,685	$8,771		
2.000	$6,878	$6,277	$4,392	$1,753	$15,073	$10,861	$7,359	$2,937	$21,150	$15,241	$10,326	$4,121	
1.500	$7,540	$6,938	$5,053	$2,414	$16,181	$11,969	$8,467	$4,045	$22,705	$16,796	$11,881	$5,676	
1.000	$8,201	$7,599	$5,714	$3,075	$17,289	$13,078	$9,576	$5,154	$24,261	$18,351	$13,437	$7,232	
0.300	$9,127	$8,525	$6,640	$4,001	$18,841	$14,629	$11,127	$6,705	$26,438	$20,528	$15,614	$9,409	
0.000	$9,524	$8,922	$7,037	$4,398	$19,506	$15,294	$11,792	$7,370	$27,371	$21,461	$16,547	$10,342	$933

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,735					$20,335					$41,782				
6.745	$13,494					$21,648					$44,273				
5.320	$20,473					$33,722					$67,173				
4.655	$23,730	$10,996				$39,357	$19,022				$77,860	$36,077			
4.560	$24,196	$11,461				$40,162	$19,827				$79,386	$37,604			
3.325	$30,244	$17,510	$6,514			$50,626	$30,291	$11,269			$99,233	$57,451	$19,847		
2.850	$32,571	$19,836	$8,841			$54,651	$34,316	$15,294			$106,866	$65,084	$27,480		
2.500	$34,285	$21,551	$10,555			$57,616	$37,281	$18,259			$112,491	$70,708	$33,104		
2.000	$36,734	$24,000	$13,004	$4,163		$61,853	$41,518	$22,496	$7,202		$120,526	$78,743	$41,139	$13,660	
1.500	$39,183	$26,449	$15,453	$6,612		$66,089	$45,754	$26,732	$11,439		$128,561	$86,778	$49,174	$21,695	
1.000	$41,632	$28,898	$17,902	$9,061		$70,326	$49,991	$30,969	$15,675		$136,596	$94,813	$57,209	$29,730	
0.300	$45,061	$32,326	$21,330	$12,490		$76,257	$55,922	$36,900	$21,606		$147,845	$106,063	$68,459	$40,979	
0.000	$46,530	$33,795	$22,800	$13,959	$1,469	$78,799	$58,464	$39,442	$24,148	$2,542	$152,666	$110,884	$73,280	$45,800	$4,821

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$60,285				
6.900	$67,519				
6.745	$71,257				
5.320	$105,620				
4.655	$121,655	$54,136			
4.560	$123,946	$56,427			
3.325	$153,727	$86,208	$29,781		
2.850	$165,181	$97,662	$41,235		
2.500	$173,621	$106,102	$49,675		
2.000	$185,678	$118,159	$61,732	$20,497	
1.500	$197,735	$130,216	$73,789	$32,554	
1.000	$209,792	$142,273	$85,846	$44,611	
0.300	$226,672	$159,153	$102,726	$61,491	
0.000	$233,906	$166,387	$109,960	$68,725	$7,234

Terminal Tractor: On-Road Certified Engines Only
5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	100 - 174								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$17,143								
6.900	$18,612								
6.745	$19,371								
5.320	$26,351								
4.655	$29,608								
4.560	$30,073								
3.325	$36,122	$13,102	$8,204						
2.850	$38,448	$15,428	$10,530	$5,633					
2.500	$40,163	$17,143	$12,245	$7,347					
2.000	$42,612	$19,592	$14,694	$9,796					
1.500	$45,061	$22,040	$17,143	$12,245	$4,286	$4,286			
1.000	$47,510	$24,489	$19,592	$14,694	$6,735	$6,735	$2,449		
0.300	$50,938	$27,918	$23,020	$18,122	$10,163	$10,163	$5,877	$980	
0.000	$52,407	$29,387	$24,489	$19,592	$11,632	$11,632	$7,347	$2,449	$980

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	175 - 299								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$29,655								
6.900	$32,197								
6.745	$33,511								
5.320	$45,585								
4.655	$51,219								
4.560	$52,024								
3.325	$62,488	$22,665	$14,192						
2.850	$66,513	$26,690	$18,217	$9,744					
2.500	$69,479	$29,655	$21,182	$12,709					
2.000	$73,715	$33,892	$25,419	$16,946					
1.500	$77,951	$38,128	$29,655	$21,182	$7,414	$7,414			
1.000	$82,188	$42,365	$33,892	$25,419	$11,650	$11,650	$4,236		
0.300	$88,119	$48,296	$39,823	$31,350	$17,581	$17,581	$10,168	$1,695	
0.000	$90,661	$50,838	$42,365	$33,892	$20,123	$20,123	$12,709	$4,236	$1,695

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	300-400								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$43,795								
6.900	$47,549								
6.745	$49,488								
5.320	$67,319								
4.655	$75,640								
4.560	$76,829								
3.325	$92,282	$33,472	$20,959						
2.850	$98,226	$39,415	$26,903	$14,390					
2.500	$102,605	$43,795	$31,282	$18,769					
2.000	$108,862	$50,051	$37,539	$25,026					
1.500	$115,118	$56,308	$43,795	$31,282	$10,949	$10,949			
1.000	$121,375	$62,564	$50,051	$37,539	$17,205	$17,205	$6,256		
0.300	$130,134	$71,323	$58,810	$46,298	$25,964	$25,964	$15,015	$2,503	
0.000	$133,888	$75,077	$62,564	$50,051	$29,718	$29,718	$18,769	$6,256	$2,503

Non-Road Tractor-Loader-Backhoe

5-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$501				$1,555				$2,181				
4.655	$678	$557			$1,852	$1,003			$2,598	$1,407			
4.560	$704	$582			$1,894	$1,045			$2,658	$1,467			
3.325	$1,033	$912	$532		$2,446	$1,597	$891		$3,432	$2,241	$1,251		
2.850	$1,160	$1,038	$658		$2,658	$1,809	$1,103		$3,730	$2,539	$1,548		
2.500	$1,253	$1,132	$752		$2,814	$1,966	$1,260		$3,949	$2,758	$1,768		
2.000	$1,386	$1,265	$885	$353	$3,038	$2,189	$1,483	$592	$4,263	$3,072	$2,081	$831	
1.500	$1,520	$1,398	$1,018	$487	$3,261	$2,412	$1,706	$815	$4,576	$3,385	$2,395	$1,144	
1.000	$1,653	$1,532	$1,152	$620	$3,484	$2,636	$1,930	$1,039	$4,889	$3,698	$2,708	$1,457	
0.300	$1,839	$1,718	$1,338	$806	$3,797	$2,948	$2,243	$1,351	$5,328	$4,137	$3,147	$1,896	
0.000	$1,919	$1,798	$1,418	$886	$3,931	$3,082	$2,377	$1,485	$5,516	$4,325	$3,335	$2,084	$188

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$2,566					$4,098					$8,421				
6.745	$2,719					$4,363					$8,923				
5.320	$4,126					$6,796					$13,538				
4.655	$4,782	$2,216				$7,932	$3,834				$15,691	$7,271			
4.560	$4,876	$2,310				$8,094	$3,996				$15,999	$7,579			
3.325	$6,095	$3,529	$1,313			$10,203	$6,105	$2,271			$19,999	$11,578	$4,000		
2.850	$6,564	$3,998	$1,782			$11,014	$6,916	$3,082			$21,537	$13,117	$5,538		
2.500	$6,910	$4,343	$2,127			$11,612	$7,513	$3,680			$22,671	$14,250	$6,672		
2.000	$7,403	$4,837	$2,621	$839		$12,466	$8,367	$4,534	$1,451		$24,290	$15,870	$8,291	$2,753	
1.500	$7,897	$5,330	$3,114	$1,333		$13,319	$9,221	$5,387	$2,305		$25,909	$17,489	$9,910	$4,372	
1.000	$8,390	$5,824	$3,608	$1,826		$14,173	$10,075	$6,241	$3,159		$27,529	$19,108	$11,530	$5,992	
0.300	$9,081	$6,515	$4,299	$2,517		$15,368	$11,270	$7,437	$4,354		$29,796	$21,375	$13,797	$8,259	
0.000	$9,377	$6,811	$4,595	$2,813	$296	$15,881	$11,782	$7,949	$4,867	$512	$30,767	$22,347	$14,768	$9,230	$972

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$12,150				
6.900	$13,608				
6.745	$14,361				
5.320	$21,286				
4.655	$24,518	$10,910			
4.560	$24,980	$11,372			
3.325	$30,981	$17,374	$6,002		
2.850	$33,290	$19,682	$8,310		
2.500	$34,991	$21,383	$10,011		
2.000	$37,421	$23,813	$12,441	$4,131	
1.500	$39,851	$26,243	$14,871	$6,561	
1.000	$42,280	$28,673	$17,301	$8,991	
0.300	$45,682	$32,075	$20,703	$12,393	
0.000	$47,140	$33,533	$22,161	$13,851	$1,458

APPENDIX F: 7-YEAR ACTIVITY LIFE NON-ROAD DIESEL ELIGIBLE MODEL YEARS, HORSEPOWER RANGES, AND MAXIMUM REBATE GRANT AMOUNTS

Non-Road Agricultural Tractor
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,098				$6,509				$9,133				
4.655	$2,841	$2,333			$7,752	$4,199			$10,878	$5,892			
4.560	$2,947	$2,439			$7,930	$4,376			$11,128	$6,141			
3.325	$4,325	$3,817	$2,227		$10,240	$6,686	$3,731		$14,369	$9,382	$5,236		
2.850	$4,855	$4,347	$2,757		$11,128	$7,575	$4,620		$15,615	$10,629	$6,482		
2.500	$5,246	$4,738	$3,147		$11,783	$8,229	$5,274		$16,534	$11,547	$7,401		
2.000	$5,804	$5,296	$3,706	$1,479	$12,718	$9,164	$6,209	$2,478	$17,846	$12,860	$8,713	$3,477	
1.500	$6,362	$5,854	$4,264	$2,037	$13,653	$10,100	$7,144	$3,413	$19,158	$14,172	$10,025	$4,790	
1.000	$6,920	$6,412	$4,822	$2,595	$14,588	$11,035	$8,080	$4,348	$20,471	$15,484	$11,338	$6,102	
0.300	$7,701	$7,193	$5,603	$3,376	$15,897	$12,344	$9,389	$5,658	$22,308	$17,321	$13,175	$7,939	
0.000	$8,036	$7,528	$5,938	$3,711	$16,458	$12,905	$9,950	$6,219	$23,095	$18,109	$13,962	$8,726	$787

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$10,745					$17,158					$35,255				
6.745	$11,386					$18,266					$37,356				
5.320	$17,275					$28,454					$56,679				
4.655	$20,023	$9,278				$33,208	$16,050				$65,696	$30,441			
4.560	$20,416	$9,671				$33,888	$16,729				$66,984	$31,729			
3.325	$25,520	$14,774	$5,497			$42,717	$25,559	$9,509			$83,730	$48,475	$16,746		
2.850	$27,483	$16,737	$7,460			$46,113	$28,955	$12,904			$90,171	$54,916	$23,187		
2.500	$28,929	$18,184	$8,906			$48,615	$31,457	$15,407			$94,917	$59,662	$27,933		
2.000	$30,995	$20,250	$10,972	$3,513		$52,190	$35,032	$18,981	$6,077		$101,696	$66,442	$34,712	$11,526	
1.500	$33,062	$22,317	$13,039	$5,579		$55,764	$38,606	$22,556	$9,652		$108,476	$73,221	$41,492	$18,305	
1.000	$35,128	$24,383	$15,105	$7,646		$59,339	$42,181	$26,131	$13,226		$115,256	$80,001	$48,272	$25,085	
0.300	$38,021	$27,276	$17,998	$10,538		$64,344	$47,185	$31,135	$18,231		$124,748	$89,493	$57,764	$34,577	
0.000	$39,261	$28,516	$19,238	$11,778	$1,240	$66,488	$49,330	$33,280	$20,375	$2,145	$128,816	$93,561	$61,831	$38,645	$4,068

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$50,867				
6.900	$56,971				
6.745	$60,125				
5.320	$89,119				
4.655	$102,650	$45,679			
4.560	$104,583	$47,612			
3.325	$129,711	$72,740	$25,128		
2.850	$139,376	$82,405	$34,793		
2.500	$146,497	$89,526	$41,914		
2.000	$156,671	$99,699	$52,088	$17,295	
1.500	$166,844	$109,873	$62,261	$27,468	
1.000	$177,017	$120,046	$72,435	$37,642	
0.300	$191,260	$134,289	$86,678	$51,884	
0.000	$197,364	$140,393	$92,782	$57,988	$6,104

Non-Road Combine
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,267				$3,931				$5,516				
4.655	$1,716	$1,409			$4,682	$2,536			$6,570	$3,558			
4.560	$1,780	$1,473			$4,789	$2,643			$6,720	$3,709			
3.325	$2,612	$2,305	$1,345		$6,184	$4,038	$2,253		$8,678	$5,666	$3,162		
2.850	$2,932	$2,626	$1,665		$6,721	$4,575	$2,790		$9,431	$6,419	$3,915		
2.500	$3,168	$2,861	$1,901		$7,116	$4,970	$3,185		$9,986	$6,974	$4,470		
2.000	$3,505	$3,199	$2,238	$893	$7,681	$5,535	$3,750	$1,497	$10,778	$7,767	$5,262	$2,100	
1.500	$3,842	$3,536	$2,575	$1,230	$8,246	$6,100	$4,315	$2,061	$11,571	$8,559	$6,055	$2,893	
1.000	$4,179	$3,873	$2,912	$1,567	$8,810	$6,664	$4,880	$2,626	$12,363	$9,352	$6,847	$3,685	
0.300	$4,651	$4,344	$3,384	$2,039	$9,601	$7,455	$5,670	$3,417	$13,473	$10,461	$7,957	$4,795	
0.000	$4,853	$4,547	$3,586	$2,241	$9,940	$7,794	$6,009	$3,756	$13,948	$10,937	$8,432	$5,270	$476

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$6,489					$10,363					$21,292				
6.745	$6,876					$11,032					$22,561				
5.320	$10,433					$17,185					$34,231				
4.655	$12,093	$5,603				$20,056	$9,693				$39,677	$18,385			
4.560	$12,330	$5,841				$20,466	$10,104				$40,455	$19,163			
3.325	$15,412	$8,923	$3,320			$25,799	$15,436	$5,743			$50,569	$29,277	$10,114		
2.850	$16,598	$10,109	$4,505			$27,850	$17,487	$7,794			$54,458	$33,166	$14,004		
2.500	$17,472	$10,982	$5,379			$29,361	$18,998	$9,305			$57,325	$36,033	$16,870		
2.000	$18,720	$12,230	$6,627	$2,122		$31,520	$21,157	$11,464	$3,670		$61,419	$40,127	$20,964	$6,961	
1.500	$19,968	$13,478	$7,875	$3,370		$33,679	$23,316	$13,623	$5,829		$65,514	$44,222	$25,059	$11,055	
1.000	$21,216	$14,726	$9,123	$4,617		$35,838	$25,475	$15,782	$7,988		$69,609	$48,317	$29,154	$15,150	
0.300	$22,963	$16,473	$10,870	$6,365		$38,860	$28,497	$18,804	$11,010		$75,341	$54,049	$34,886	$20,883	
0.000	$23,711	$17,222	$11,619	$7,113	$749	$40,156	$29,793	$20,099	$12,306	$1,295	$77,798	$56,506	$37,343	$23,339	$2,457

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$30,721				
6.900	$34,408				
6.745	$36,312				
5.320	$53,823				
4.655	$61,995	$27,587			
4.560	$63,162	$28,755			
3.325	$78,339	$43,931	$15,176		
2.850	$84,176	$49,768	$21,013		
2.500	$88,477	$54,069	$25,314		
2.000	$94,621	$60,213	$31,458	$10,445	
1.500	$100,765	$66,357	$37,603	$16,589	
1.000	$106,909	$72,502	$43,747	$22,734	
0.300	$115,511	$81,104	$52,349	$31,335	
0.000	$119,198	$84,790	$56,035	$35,022	$3,687

Non-Road Crane
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,517				$7,808				$10,957				
4.655	$3,408	$2,798			$9,300	$5,037			$13,050	$7,068			
4.560	$3,535	$2,926			$9,513	$5,250			$13,349	$7,367			
3.325	$5,189	$4,579	$2,671		$12,284	$8,021	$4,476		$17,238	$11,256	$6,281		
2.850	$5,825	$5,215	$3,307		$13,350	$9,087	$5,542		$18,733	$12,751	$7,777		
2.500	$6,293	$5,684	$3,776		$14,135	$9,872	$6,327		$19,835	$13,853	$8,879		
2.000	$6,963	$6,353	$4,445	$1,774	$15,257	$10,994	$7,449	$2,973	$21,409	$15,427	$10,453	$4,172	
1.500	$7,632	$7,023	$5,115	$2,444	$16,379	$12,116	$8,571	$4,095	$22,984	$17,002	$12,027	$5,746	
1.000	$8,302	$7,692	$5,784	$3,113	$17,501	$13,238	$9,693	$5,217	$24,558	$18,576	$13,601	$7,320	
0.300	$9,239	$8,630	$6,722	$4,050	$19,072	$14,808	$11,263	$6,787	$26,762	$20,780	$15,805	$9,524	
0.000	$9,641	$9,031	$7,123	$4,452	$19,745	$15,482	$11,937	$7,460	$27,706	$21,724	$16,750	$10,469	$945

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,890					$20,584					$42,294				
6.745	$13,659					$21,914					$44,815				
5.320	$20,724					$34,136					$67,996				
4.655	$24,021	$11,130				$39,839	$19,255				$78,813	$36,519			
4.560	$24,492	$11,601				$40,654	$20,070				$80,358	$38,065			
3.325	$30,615	$17,724	$6,594			$51,246	$30,662	$11,407			$100,448	$58,154	$20,090		
2.850	$32,970	$20,079	$8,949			$55,320	$34,736	$15,481			$108,175	$65,881	$27,816		
2.500	$34,705	$21,815	$10,684			$58,322	$37,738	$18,483			$113,868	$71,574	$33,510		
2.000	$37,184	$24,294	$13,163	$4,214		$62,610	$42,026	$22,771	$7,290		$122,002	$79,708	$41,643	$13,827	
1.500	$39,663	$26,773	$15,642	$6,693		$66,899	$46,315	$27,060	$11,579		$130,135	$87,841	$49,777	$21,960	
1.000	$42,142	$29,251	$18,121	$9,172		$71,187	$50,603	$31,348	$15,867		$138,269	$95,975	$57,910	$30,094	
0.300	$45,612	$32,722	$21,592	$12,643		$77,191	$56,607	$37,352	$21,871		$149,655	$107,362	$69,297	$41,481	
0.000	$47,100	$34,209	$23,079	$14,130	$1,487	$79,764	$59,180	$39,925	$24,444	$2,573	$154,536	$112,242	$74,177	$46,361	$4,880

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$61,023				
6.900	$68,346				
6.745	$72,130				
5.320	$106,913				
4.655	$123,145	$54,799			
4.560	$125,464	$57,118			
3.325	$155,610	$87,264	$30,146		
2.850	$167,204	$98,858	$41,740		
2.500	$175,748	$107,401	$50,283		
2.000	$187,952	$119,606	$62,488	$20,748	
1.500	$200,157	$131,811	$74,693	$32,953	
1.000	$212,362	$144,015	$86,897	$45,157	
0.300	$229,448	$161,102	$103,984	$62,244	
0.000	$236,771	$168,425	$111,307	$69,567	$7,323

Non-Road Crawler Tractor

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,102				$3,417				$4,795				
4.655	$1,491	$1,225			$4,070	$2,204			$5,711	$3,093			
4.560	$1,547	$1,280			$4,163	$2,298			$5,842	$3,224			
3.325	$2,271	$2,004	$1,169		$5,376	$3,510	$1,959		$7,544	$4,926	$2,749		
2.850	$2,549	$2,282	$1,447		$5,842	$3,977	$2,425		$8,198	$5,580	$3,403		
2.500	$2,754	$2,487	$1,652		$6,186	$4,320	$2,769		$8,680	$6,062	$3,885		
2.000	$3,047	$2,780	$1,945	$776	$6,677	$4,811	$3,260	$1,301	$9,369	$6,751	$4,574	$1,826	
1.500	$3,340	$3,073	$2,238	$1,069	$7,168	$5,302	$3,751	$1,792	$10,058	$7,440	$5,263	$2,515	
1.000	$3,633	$3,366	$2,531	$1,362	$7,659	$5,793	$4,242	$2,283	$10,747	$8,129	$5,952	$3,203	
0.300	$4,043	$3,777	$2,942	$1,773	$8,346	$6,481	$4,929	$2,970	$11,711	$9,094	$6,917	$4,168	
0.000	$4,219	$3,952	$3,117	$1,948	$8,641	$6,775	$5,224	$3,265	$12,125	$9,507	$7,330	$4,581	$413

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$5,641					$9,008					$18,509				
6.745	$5,977					$9,590					$19,612				
5.320	$9,069					$14,938					$29,756				
4.655	$10,512	$4,871				$17,434	$8,426				$34,490	$15,982			
4.560	$10,718	$5,077				$17,791	$8,783				$35,167	$16,658			
3.325	$13,398	$7,757	$2,886			$22,426	$13,418	$4,992			$43,958	$25,450	$8,792		
2.850	$14,428	$8,787	$3,916			$24,209	$15,201	$6,775			$47,340	$28,831	$12,173		
2.500	$15,188	$9,547	$4,676			$25,523	$16,515	$8,089			$49,831	$31,323	$14,665		
2.000	$16,273	$10,631	$5,760	$1,844		$27,400	$18,392	$9,965	$3,190		$53,391	$34,882	$18,224	$6,051	
1.500	$17,357	$11,716	$6,845	$2,929		$29,276	$20,268	$11,842	$5,067		$56,950	$38,441	$21,783	$9,610	
1.000	$18,442	$12,801	$7,930	$4,014		$31,153	$22,145	$13,719	$6,944		$60,509	$42,001	$25,343	$13,170	
0.300	$19,961	$14,320	$9,449	$5,533		$33,780	$24,772	$16,346	$9,571		$65,493	$46,984	$30,326	$18,153	
0.000	$20,612	$14,971	$10,100	$6,184	$651	$34,906	$25,898	$17,472	$10,697	$1,126	$67,628	$49,119	$32,462	$20,288	$2,136

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$26,705				
6.900	$29,910				
6.745	$31,566				
5.320	$46,788				
4.655	$53,891	$23,981			
4.560	$54,906	$24,996			
3.325	$68,098	$38,188	$13,192		
2.850	$73,172	$43,262	$18,266		
2.500	$76,911	$47,001	$22,005		
2.000	$82,252	$52,342	$27,346	$9,080	
1.500	$87,593	$57,683	$32,687	$14,421	
1.000	$92,934	$63,024	$38,028	$19,762	
0.300	$100,412	$70,502	$45,506	$27,239	
0.000	$103,616	$73,706	$48,710	$30,444	$3,205

Non-Road Crushing-Processing Equipment

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$1,930				$5,986				$8,399				
4.655	$2,612	$2,145			$7,129	$3,861			$10,004	$5,418			
4.560	$2,710	$2,243			$7,293	$4,025			$10,233	$5,648			
3.325	$3,977	$3,510	$2,048		$9,417	$6,149	$3,431		$13,214	$8,628	$4,815		
2.850	$4,465	$3,998	$2,535		$10,234	$6,966	$4,248		$14,361	$9,775	$5,961		
2.500	$4,824	$4,357	$2,895		$10,836	$7,568	$4,850		$15,205	$10,620	$6,806		
2.000	$5,338	$4,871	$3,408	$1,360	$11,696	$8,428	$5,710	$2,279	$16,412	$11,826	$8,013	$3,198	
1.500	$5,851	$5,384	$3,921	$1,873	$12,556	$9,288	$6,570	$3,139	$17,619	$13,033	$9,220	$4,405	
1.000	$6,364	$5,897	$4,434	$2,386	$13,416	$10,148	$7,430	$3,999	$18,826	$14,240	$10,427	$5,611	
0.300	$7,083	$6,615	$5,153	$3,105	$14,620	$11,352	$8,634	$5,203	$20,515	$15,929	$12,116	$7,301	
0.000	$7,390	$6,923	$5,461	$3,413	$15,136	$11,868	$9,150	$5,719	$21,239	$16,653	$12,840	$8,025	$724

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$9,882					$15,780					$32,422				
6.745	$10,471					$16,799					$34,355				
5.320	$15,887					$26,168					$52,125				
4.655	$18,414	$8,532				$30,540	$14,760				$60,417	$27,995			
4.560	$18,775	$8,894				$31,165	$15,385				$61,602	$29,180			
3.325	$23,469	$13,587	$5,055			$39,285	$23,505	$8,745			$77,002	$44,580	$15,400		
2.850	$25,274	$15,393	$6,860			$42,408	$26,628	$11,868			$82,925	$50,503	$21,324		
2.500	$26,604	$16,723	$8,190			$44,709	$28,929	$14,169			$87,290	$54,868	$25,688		
2.000	$28,505	$18,623	$10,091	$3,231		$47,996	$32,217	$17,456	$5,589		$93,525	$61,103	$31,923	$10,599	
1.500	$30,405	$20,523	$11,991	$5,131		$51,284	$35,504	$20,744	$8,876		$99,760	$67,338	$38,158	$16,834	
1.000	$32,305	$22,424	$13,891	$7,031		$54,571	$38,792	$24,031	$12,163		$105,995	$73,573	$44,393	$23,069	
0.300	$34,966	$25,084	$16,552	$9,692		$59,173	$43,394	$28,633	$16,766		$114,724	$82,302	$53,122	$31,798	
0.000	$36,106	$26,224	$17,692	$10,832	$1,140	$61,146	$45,366	$30,606	$18,738	$1,972	$118,465	$86,043	$56,863	$35,539	$3,741

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$46,780				
6.900	$52,393				
6.745	$55,294				
5.320	$81,958				
4.655	$94,402	$42,008			
4.560	$96,179	$43,786			
3.325	$119,288	$66,895	$23,109		
2.850	$128,177	$75,783	$31,997		
2.500	$134,726	$82,332	$38,547		
2.000	$144,082	$91,688	$47,903	$15,905	
1.500	$153,438	$101,044	$57,258	$25,261	
1.000	$162,794	$110,400	$66,614	$34,617	
0.300	$175,892	$123,499	$79,713	$47,715	
0.000	$181,506	$129,112	$85,326	$53,329	$5,614

Non-Road Excavator

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,313				$10,277				$14,421				
4.655	$4,485	$3,683			$12,240	$6,630			$17,176	$9,303			
4.560	$4,653	$3,851			$12,521	$6,910			$17,570	$9,697			
3.325	$6,829	$6,027	$3,516		$16,168	$10,557	$5,891		$22,687	$14,814	$8,267		
2.850	$7,666	$6,864	$4,353		$17,571	$11,960	$7,294		$24,656	$16,783	$10,235		
2.500	$8,283	$7,481	$4,970		$18,604	$12,994	$8,328		$26,106	$18,233	$11,686		
2.000	$9,164	$8,362	$5,851	$2,335	$20,081	$14,470	$9,804	$3,913	$28,178	$20,305	$13,758	$5,491	
1.500	$10,045	$9,243	$6,732	$3,216	$21,557	$15,947	$11,281	$5,389	$30,250	$22,377	$15,829	$7,562	
1.000	$10,926	$10,125	$7,613	$4,097	$23,034	$17,423	$12,757	$6,866	$32,322	$24,449	$17,901	$9,634	
0.300	$12,160	$11,358	$8,847	$5,331	$25,101	$19,490	$14,824	$8,933	$35,223	$27,349	$20,802	$12,535	
0.000	$12,689	$11,887	$9,376	$5,860	$25,987	$20,376	$15,710	$9,819	$36,466	$28,592	$22,045	$13,778	$1,243

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$16,966					$27,092					$55,665				
6.745	$17,977					$28,842					$58,984				
5.320	$27,276					$44,928					$89,493				
4.655	$31,615	$14,649				$52,434	$25,342				$103,730	$48,065			
4.560	$32,235	$15,269				$53,507	$26,415				$105,764	$50,099			
3.325	$40,294	$23,328	$8,679			$67,448	$40,356	$15,014			$132,205	$76,540	$26,441		
2.850	$43,394	$26,428	$11,778			$72,810	$45,718	$20,375			$142,375	$86,710	$36,611		
2.500	$45,677	$28,711	$14,062			$76,761	$49,669	$24,326			$149,868	$94,203	$44,104		
2.000	$48,940	$31,974	$17,325	$5,547		$82,405	$55,313	$29,971	$9,595		$160,573	$104,908	$54,809	$18,198	
1.500	$52,203	$35,237	$20,587	$8,809		$88,049	$60,957	$35,615	$15,239		$171,278	$115,613	$65,514	$28,903	
1.000	$55,465	$38,499	$23,850	$12,072		$93,693	$66,601	$41,259	$20,883		$181,983	$126,318	$76,219	$39,608	
0.300	$60,033	$43,067	$28,418	$16,640		$101,595	$74,503	$49,161	$28,785		$196,970	$141,305	$91,206	$54,595	
0.000	$61,991	$45,025	$30,375	$18,597	$1,958	$104,982	$77,890	$52,547	$32,172	$3,387	$203,393	$147,727	$97,629	$61,018	$6,423

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$80,316				
6.900	$89,954				
6.745	$94,934				
5.320	$140,714				
4.655	$162,079	$72,124			
4.560	$165,131	$75,176			
3.325	$204,807	$114,853	$39,676		
2.850	$220,067	$130,113	$54,936		
2.500	$231,311	$141,357	$66,181		
2.000	$247,375	$157,420	$82,244	$27,308	
1.500	$263,438	$173,484	$98,307	$43,371	
1.000	$279,501	$189,547	$114,371	$59,434	
0.300	$301,990	$212,035	$136,859	$81,923	
0.000	$311,628	$221,673	$146,497	$91,561	$9,638

Non-Road Forklift
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$4,710				$14,610				$20,501				
4.655	$6,376	$5,236			$17,402	$9,425			$24,419	$13,226			
4.560	$6,614	$5,474			$17,801	$9,824			$24,978	$13,785			
3.325	$9,709	$8,569	$4,998		$22,986	$15,009	$8,376		$32,254	$21,061	$11,753		
2.850	$10,899	$9,759	$6,188		$24,980	$17,003	$10,370		$35,052	$23,859	$14,551		
2.500	$11,776	$10,636	$7,065		$26,449	$18,472	$11,839		$37,114	$25,921	$16,613		
2.000	$13,028	$11,888	$8,318	$3,320	$28,548	$20,572	$13,938	$5,563	$40,060	$28,867	$19,559	$7,806	
1.500	$14,281	$13,141	$9,571	$4,572	$30,647	$22,671	$16,037	$7,662	$43,005	$31,812	$22,504	$10,751	
1.000	$15,534	$14,394	$10,823	$5,825	$32,747	$24,770	$18,137	$9,761	$45,951	$34,758	$25,450	$13,697	
0.300	$17,287	$16,147	$12,577	$7,579	$35,685	$27,709	$21,075	$12,700	$50,075	$38,882	$29,574	$17,821	
0.000	$18,039	$16,899	$13,329	$8,331	$36,945	$28,968	$22,335	$13,959	$51,842	$40,649	$31,341	$19,588	$1,767

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$24,120					$38,516					$79,138				
6.745	$25,558					$41,003					$83,856				
5.320	$38,777					$63,872					$127,229				
4.655	$44,946	$20,827				$74,544	$36,028				$147,470	$68,332			
4.560	$45,828	$21,708				$76,069	$37,553				$150,362	$71,224			
3.325	$57,285	$33,165	$12,338			$95,888	$57,373	$21,344			$187,952	$108,814	$37,590		
2.850	$61,691	$37,571	$16,745			$103,511	$64,996	$28,967			$202,410	$123,272	$52,048		
2.500	$64,938	$40,818	$19,992			$109,128	$70,612	$34,584			$213,063	$133,925	$62,701		
2.000	$69,576	$45,457	$24,630	$7,885		$117,152	$78,637	$42,608	$13,641		$228,282	$149,144	$77,920	$25,872	
1.500	$74,215	$50,095	$29,268	$12,524		$125,177	$86,661	$50,632	$21,665		$243,501	$164,363	$93,139	$41,091	
1.000	$78,853	$54,733	$33,907	$17,162		$133,201	$94,685	$58,656	$29,689		$258,719	$179,582	$108,358	$56,310	
0.300	$85,347	$61,227	$40,401	$23,656		$144,435	$105,919	$69,890	$40,923		$280,026	$200,888	$129,664	$77,616	
0.000	$88,130	$64,010	$43,184	$26,439	$2,783	$149,249	$110,733	$74,705	$45,738	$4,814	$289,157	$210,019	$138,795	$86,747	$9,131

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$114,183				
6.900	$127,885				
6.745	$134,965				
5.320	$200,049				
4.655	$230,422	$102,537			
4.560	$234,761	$106,875			
3.325	$291,167	$163,282	$56,407		
2.850	$312,862	$184,977	$78,101		
2.500	$328,848	$200,962	$94,087		
2.000	$351,684	$223,799	$116,924	$38,822	
1.500	$374,521	$246,636	$139,760	$61,659	
1.000	$397,358	$269,472	$162,597	$84,496	
0.300	$429,329	$301,444	$194,568	$116,467	
0.000	$443,031	$315,146	$208,270	$130,169	$13,702

Non-Road Grader
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,313				$10,277				$14,421				
4.655	$4,485	$3,683			$12,240	$6,630			$17,176	$9,303			
4.560	$4,653	$3,851			$12,521	$6,910			$17,570	$9,697			
3.325	$6,829	$6,027	$3,516		$16,168	$10,557	$5,891		$22,687	$14,814	$8,267		
2.850	$7,666	$6,864	$4,353		$17,571	$11,960	$7,294		$24,656	$16,783	$10,235		
2.500	$8,283	$7,481	$4,970		$18,604	$12,994	$8,328		$26,106	$18,233	$11,686		
2.000	$9,164	$8,362	$5,851	$2,335	$20,081	$14,470	$9,804	$3,913	$28,178	$20,305	$13,758	$5,491	
1.500	$10,045	$9,243	$6,732	$3,216	$21,557	$15,947	$11,281	$5,389	$30,250	$22,377	$15,829	$7,562	
1.000	$10,926	$10,125	$7,613	$4,097	$23,034	$17,423	$12,757	$6,866	$32,322	$24,449	$17,901	$9,634	
0.300	$12,160	$11,358	$8,847	$5,331	$25,101	$19,490	$14,824	$8,933	$35,223	$27,349	$20,802	$12,535	
0.000	$12,689	$11,887	$9,376	$5,860	$25,987	$20,376	$15,710	$9,819	$36,466	$28,592	$22,045	$13,778	$1,243

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$16,966					$27,092					$55,665				
6.745	$17,977					$28,842					$58,984				
5.320	$27,276					$44,928					$89,493				
4.655	$31,615	$14,649				$52,434	$25,342				$103,730	$48,065			
4.560	$32,235	$15,269				$53,507	$26,415				$105,764	$50,099			
3.325	$40,294	$23,328	$8,679			$67,448	$40,356	$15,014			$132,205	$76,540	$26,441		
2.850	$43,394	$26,428	$11,778			$72,810	$45,718	$20,375			$142,375	$86,710	$36,611		
2.500	$45,677	$28,711	$14,062			$76,761	$49,669	$24,326			$149,868	$94,203	$44,104		
2.000	$48,940	$31,974	$17,325	$5,547		$82,405	$55,313	$29,971	$9,595		$160,573	$104,908	$54,809	$18,198	
1.500	$52,203	$35,237	$20,587	$8,809		$88,049	$60,957	$35,615	$15,239		$171,278	$115,613	$65,514	$28,903	
1.000	$55,465	$38,499	$23,850	$12,072		$93,693	$66,601	$41,259	$20,883		$181,983	$126,318	$76,219	$39,608	
0.300	$60,033	$43,067	$28,418	$16,640		$101,595	$74,503	$49,161	$28,785		$196,970	$141,305	$91,206	$54,595	
0.000	$61,991	$45,025	$30,375	$18,597	$1,958	$104,982	$77,890	$52,547	$32,172	$3,387	$203,393	$147,727	$97,629	$61,018	$6,423

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$80,316				
6.900	$89,954				
6.745	$94,934				
5.320	$140,714				
4.655	$162,079	$72,124			
4.560	$165,131	$75,176			
3.325	$204,807	$114,853	$39,676		
2.850	$220,067	$130,113	$54,936		
2.500	$231,311	$141,357	$66,181		
2.000	$247,375	$157,420	$82,244	$27,308	
1.500	$263,438	$173,484	$98,307	$43,371	
1.000	$279,501	$189,547	$114,371	$59,434	
0.300	$301,990	$212,035	$136,859	$81,923	
0.000	$311,628	$221,673	$146,497	$91,561	$9,638

Non-Road Off-Highway Tractor
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced
Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,369				$7,348				$10,311				
4.655	$3,207	$2,634			$8,752	$4,740			$12,281	$6,652			
4.560	$3,327	$2,753			$8,953	$4,941			$12,562	$6,933			
3.325	$4,883	$4,309	$2,514		$11,560	$7,548	$4,212		$16,222	$10,592	$5,911		
2.850	$5,481	$4,908	$3,112		$12,563	$8,551	$5,215		$17,629	$11,999	$7,318		
2.500	$5,922	$5,349	$3,553		$13,302	$9,290	$5,954		$18,666	$13,036	$8,355		
2.000	$6,552	$5,979	$4,183	$1,670	$14,358	$10,346	$7,010	$2,798	$20,147	$14,518	$9,837	$3,926	
1.500	$7,182	$6,609	$4,813	$2,300	$15,414	$11,402	$8,066	$3,853	$21,629	$15,999	$11,318	$5,407	
1.000	$7,812	$7,239	$5,443	$2,930	$16,469	$12,458	$9,121	$4,909	$23,110	$17,481	$12,799	$6,889	
0.300	$8,694	$8,121	$6,325	$3,812	$17,947	$13,936	$10,599	$6,387	$25,184	$19,555	$14,873	$8,963	
0.000	$9,072	$8,499	$6,704	$4,190	$18,581	$14,569	$11,233	$7,021	$26,073	$20,444	$15,762	$9,851	$889

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,131					$19,371					$39,801				
6.745	$12,854					$20,622					$42,174				
5.320	$19,502					$32,123					$63,987				
4.655	$22,605	$10,474				$37,491	$18,120				$74,167	$34,366			
4.560	$23,048	$10,918				$38,257	$18,887				$75,621	$35,821			
3.325	$28,810	$16,680	$6,205			$48,225	$28,854	$10,735			$94,527	$54,726	$18,905		
2.850	$31,026	$18,896	$8,421			$52,059	$32,688	$14,568			$101,798	$61,997	$26,177		
2.500	$32,659	$20,529	$10,054			$54,884	$35,513	$17,393			$107,156	$67,355	$31,534		
2.000	$34,992	$22,862	$12,387	$3,966		$58,920	$39,549	$21,429	$6,861		$114,810	$75,009	$39,188	$13,012	
1.500	$37,325	$25,194	$14,720	$6,299		$62,955	$43,584	$25,465	$10,896		$122,464	$82,663	$46,842	$20,666	
1.000	$39,658	$27,527	$17,053	$8,631		$66,991	$47,620	$29,500	$14,932		$130,118	$90,317	$54,496	$28,320	
0.300	$42,924	$30,793	$20,319	$11,897		$72,641	$53,270	$35,150	$20,582		$140,834	$101,033	$65,212	$39,035	
0.000	$44,323	$32,193	$21,718	$13,297	$1,400	$75,062	$55,691	$37,571	$23,003	$2,421	$145,426	$105,625	$69,804	$43,628	$4,592

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$57,426				
6.900	$64,317				
6.745	$67,878				
5.320	$100,611				
4.655	$115,886	$51,569			
4.560	$118,068	$53,751			
3.325	$146,437	$82,120	$28,369		
2.850	$157,348	$93,031	$39,280		
2.500	$165,388	$101,070	$47,319		
2.000	$176,873	$112,555	$58,804	$19,525	
1.500	$188,358	$124,041	$70,290	$31,010	
1.000	$199,843	$135,526	$81,775	$42,495	
0.300	$215,923	$151,605	$97,854	$58,575	
0.000	$222,814	$158,496	$104,745	$65,466	$6,891

Non-Road Off-Highway Truck

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,912				$12,135				$17,028				
4.655	$5,296	$4,349			$14,454	$7,829			$20,282	$10,985			
4.560	$5,494	$4,547			$14,785	$8,160			$20,747	$11,450			
3.325	$8,064	$7,117	$4,152		$19,092	$12,466	$6,957		$26,790	$17,493	$9,762		
2.850	$9,052	$8,106	$5,140		$20,748	$14,123	$8,613		$29,114	$19,817	$12,086		
2.500	$9,781	$8,834	$5,868		$21,969	$15,343	$9,834		$30,827	$21,530	$13,799		
2.000	$10,821	$9,874	$6,909	$2,757	$23,712	$17,087	$11,577	$4,620	$33,274	$23,977	$16,245	$6,483	
1.500	$11,862	$10,915	$7,949	$3,798	$25,456	$18,830	$13,321	$6,364	$35,720	$26,423	$18,692	$8,930	
1.000	$12,902	$11,955	$8,990	$4,838	$27,199	$20,574	$15,064	$8,107	$38,167	$28,870	$21,138	$11,377	
0.300	$14,359	$13,412	$10,447	$6,295	$29,640	$23,015	$17,505	$10,548	$41,592	$32,295	$24,564	$14,802	
0.000	$14,983	$14,036	$11,071	$6,919	$30,686	$24,061	$18,551	$11,595	$43,060	$33,763	$26,032	$16,270	$1,468

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$20,034					$31,991					$65,732				
6.745	$21,228					$34,057					$69,650				
5.320	$32,208					$53,052					$105,676				
4.655	$37,332	$17,298				$61,916	$29,925				$122,488	$56,757			
4.560	$38,064	$18,030				$63,183	$31,191				$124,890	$59,158			
3.325	$47,580	$27,547	$10,248			$79,645	$47,654	$17,728			$156,113	$90,381	$31,223		
2.850	$51,240	$31,207	$13,908			$85,976	$53,985	$24,060			$168,121	$102,390	$43,231		
2.500	$53,937	$33,903	$16,605			$90,642	$58,651	$28,725			$176,970	$111,238	$52,080		
2.000	$57,790	$37,756	$20,458	$6,550		$97,307	$65,315	$35,390	$11,330		$189,610	$123,879	$64,720	$21,489	
1.500	$61,643	$41,609	$24,310	$10,402		$103,971	$71,980	$42,055	$17,995		$202,251	$136,519	$77,361	$34,130	
1.000	$65,495	$45,461	$28,163	$14,255		$110,636	$78,645	$48,720	$24,660		$214,892	$149,160	$90,002	$46,771	
0.300	$70,889	$50,855	$33,557	$19,649		$119,967	$87,976	$58,051	$33,991		$232,589	$166,857	$107,699	$64,468	
0.000	$73,201	$53,167	$35,868	$21,960	$2,312	$123,966	$91,975	$62,050	$37,990	$3,999	$240,173	$174,442	$115,283	$72,052	$7,584

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$94,840				
6.900	$106,221				
6.745	$112,101				
5.320	$166,160				
4.655	$191,388	$85,167			
4.560	$194,992	$88,771			
3.325	$241,843	$135,622	$46,851		
2.850	$259,862	$153,641	$64,871		
2.500	$273,140	$166,919	$78,148		
2.000	$292,108	$185,887	$97,116	$32,246	
1.500	$311,076	$204,855	$116,085	$51,214	
1.000	$330,044	$223,823	$135,053	$70,182	
0.300	$356,600	$250,378	$161,608	$96,737	
0.000	$367,980	$261,759	$172,989	$108,118	$11,381

Non-Road Rough Terrain Forklift

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$2,424				$7,519				$10,551				
4.655	$3,282	$2,695			$8,956	$4,851			$12,567	$6,807			
4.560	$3,404	$2,817			$9,161	$5,056			$12,855	$7,095			
3.325	$4,997	$4,410	$2,572		$11,830	$7,724	$4,311		$16,600	$10,839	$6,049		
2.850	$5,609	$5,022	$3,185		$12,856	$8,751	$5,337		$18,040	$12,279	$7,489		
2.500	$6,060	$5,474	$3,636		$13,612	$9,507	$6,093		$19,101	$13,340	$8,550		
2.000	$6,705	$6,118	$4,281	$1,708	$14,693	$10,587	$7,173	$2,863	$20,617	$14,856	$10,066	$4,017	
1.500	$7,350	$6,763	$4,926	$2,353	$15,773	$11,668	$8,254	$3,943	$22,133	$16,372	$11,582	$5,533	
1.000	$7,994	$7,408	$5,570	$2,998	$16,853	$12,748	$9,334	$5,024	$23,649	$17,888	$13,098	$7,049	
0.300	$8,897	$8,310	$6,473	$3,901	$18,366	$14,260	$10,847	$6,536	$25,771	$20,011	$15,220	$9,172	
0.000	$9,284	$8,697	$6,860	$4,287	$19,014	$14,909	$11,495	$7,184	$26,681	$20,920	$16,130	$10,081	$910

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$12,413					$19,822					$40,729				
6.745	$13,153					$21,103					$43,157				
5.320	$19,957					$32,872					$65,479				
4.655	$23,132	$10,718				$38,365	$18,542				$75,896	$35,168			
4.560	$23,585	$11,172				$39,149	$19,327				$77,384	$36,656			
3.325	$29,482	$17,068	$6,350			$49,349	$29,527	$10,985			$96,730	$56,002	$19,346		
2.850	$31,750	$19,336	$8,618			$53,273	$33,450	$14,908			$104,171	$63,443	$26,787		
2.500	$33,421	$21,007	$10,289			$56,163	$36,341	$17,799			$109,654	$68,925	$32,270		
2.000	$35,808	$23,394	$12,676	$4,058		$60,293	$40,471	$21,928	$7,020		$117,486	$76,758	$40,102	$13,315	
1.500	$38,195	$25,782	$15,063	$6,445		$64,423	$44,600	$26,058	$11,150		$125,319	$84,590	$47,934	$21,148	
1.000	$40,582	$28,169	$17,450	$8,833		$68,552	$48,730	$30,188	$15,280		$133,151	$92,422	$55,767	$28,980	
0.300	$43,924	$31,511	$20,792	$12,175		$74,334	$54,511	$35,969	$21,061		$144,116	$103,388	$66,732	$39,945	
0.000	$45,357	$32,943	$22,225	$13,607	$1,432	$76,812	$56,989	$38,447	$23,539	$2,478	$148,816	$108,087	$71,432	$44,645	$4,699

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$58,765				
6.900	$65,817				
6.745	$69,460				
5.320	$102,956				
4.655	$118,587	$52,771			
4.560	$120,821	$55,004			
3.325	$149,850	$84,034	$29,030		
2.850	$161,016	$95,199	$40,195		
2.500	$169,243	$103,426	$48,422		
2.000	$180,996	$115,179	$60,175	$19,980	
1.500	$192,749	$126,932	$71,928	$31,733	
1.000	$204,502	$138,685	$83,681	$43,486	
0.300	$220,956	$155,139	$100,135	$59,940	
0.000	$228,008	$162,191	$107,187	$66,992	$7,052

Non-Road Rubber Tire Loader

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,313				$10,277				$14,421				
4.655	$4,485	$3,683			$12,240	$6,630			$17,176	$9,303			
4.560	$4,653	$3,851			$12,521	$6,910			$17,570	$9,697			
3.325	$6,829	$6,027	$3,516		$16,168	$10,557	$5,891		$22,687	$14,814	$8,267		
2.850	$7,666	$6,864	$4,353		$17,571	$11,960	$7,294		$24,656	$16,783	$10,235		
2.500	$8,283	$7,481	$4,970		$18,604	$12,994	$8,328		$26,106	$18,233	$11,686		
2.000	$9,164	$8,362	$5,851	$2,335	$20,081	$14,470	$9,804	$3,913	$28,178	$20,305	$13,758	$5,491	
1.500	$10,045	$9,243	$6,732	$3,216	$21,557	$15,947	$11,281	$5,389	$30,250	$22,377	$15,829	$7,562	
1.000	$10,926	$10,125	$7,613	$4,097	$23,034	$17,423	$12,757	$6,866	$32,322	$24,449	$17,901	$9,634	
0.300	$12,160	$11,358	$8,847	$5,331	$25,101	$19,490	$14,824	$8,933	$35,223	$27,349	$20,802	$12,535	
0.000	$12,689	$11,887	$9,376	$5,860	$25,987	$20,376	$15,710	$9,819	$36,466	$28,592	$22,045	$13,778	$1,243

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$16,966					$27,092					$55,665				
6.745	$17,977					$28,842					$58,984				
5.320	$27,276					$44,928					$89,493				
4.655	$31,615	$14,649				$52,434	$25,342				$103,730	$48,065			
4.560	$32,235	$15,269				$53,507	$26,415				$105,764	$50,099			
3.325	$40,294	$23,328	$8,679			$67,448	$40,356	$15,014			$132,205	$76,540	$26,441		
2.850	$43,394	$26,428	$11,778			$72,810	$45,718	$20,375			$142,375	$86,710	$36,611		
2.500	$45,677	$28,711	$14,062			$76,761	$49,669	$24,326			$149,868	$94,203	$44,104		
2.000	$48,940	$31,974	$17,325	$5,547		$82,405	$55,313	$29,971	$9,595		$160,573	$104,908	$54,809	$18,198	
1.500	$52,203	$35,237	$20,587	$8,809		$88,049	$60,957	$35,615	$15,239		$171,278	$115,613	$65,514	$28,903	
1.000	$55,465	$38,499	$23,850	$12,072		$93,693	$66,601	$41,259	$20,883		$181,983	$126,318	$76,219	$39,608	
0.300	$60,033	$43,067	$28,418	$16,640		$101,595	$74,503	$49,161	$28,785		$196,970	$141,305	$91,206	$54,595	
0.000	$61,991	$45,025	$30,375	$18,597	$1,958	$104,982	$77,890	$52,547	$32,172	$3,387	$203,393	$147,727	$97,629	$61,018	$6,423

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$80,316				
6.900	$89,954				
6.745	$94,934				
5.320	$140,714				
4.655	$162,079	$72,124			
4.560	$165,131	$75,176			
3.325	$204,807	$114,853	$39,676		
2.850	$220,067	$130,113	$54,936		
2.500	$231,311	$141,357	$66,181		
2.000	$247,375	$157,420	$82,244	$27,308	
1.500	$263,438	$173,484	$98,307	$43,371	
1.000	$279,501	$189,547	$114,371	$59,434	
0.300	$301,990	$212,035	$136,859	$81,923	
0.000	$311,628	$221,673	$146,497	$91,561	$9,638

Non-Road Skid Steer Loader

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$767				$2,378				$3,336				
4.655	$1,038	$852			$2,832	$1,534			$3,974	$2,152			
4.560	$1,076	$891			$2,897	$1,599			$4,065	$2,243			
3.325	$1,580	$1,394	$813		$3,741	$2,442	$1,363		$5,249	$3,427	$1,913		
2.850	$1,774	$1,588	$1,007		$4,065	$2,767	$1,688		$5,704	$3,883	$2,368		
2.500	$1,916	$1,731	$1,150		$4,304	$3,006	$1,927		$6,040	$4,218	$2,704		
2.000	$2,120	$1,935	$1,354	$540	$4,646	$3,348	$2,268	$905	$6,519	$4,698	$3,183	$1,270	
1.500	$2,324	$2,139	$1,558	$744	$4,987	$3,689	$2,610	$1,247	$6,999	$5,177	$3,662	$1,750	
1.000	$2,528	$2,342	$1,761	$948	$5,329	$4,031	$2,951	$1,588	$7,478	$5,656	$4,142	$2,229	
0.300	$2,813	$2,628	$2,047	$1,233	$5,807	$4,509	$3,430	$2,067	$8,149	$6,327	$4,813	$2,900	
0.000	$2,936	$2,750	$2,169	$1,356	$6,012	$4,714	$3,635	$2,272	$8,437	$6,615	$5,100	$3,188	$288

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$3,925					$6,268					$12,879				
6.745	$4,159					$6,673					$13,646				
5.320	$6,310					$10,394					$20,705				
4.655	$7,314	$3,389				$12,131	$5,863				$23,999	$11,120			
4.560	$7,458	$3,533				$12,379	$6,111				$24,469	$11,591			
3.325	$9,322	$5,397	$2,008			$15,604	$9,337	$3,473			$30,586	$17,708	$6,117		
2.850	$10,039	$6,114	$2,725			$16,845	$10,577	$4,714			$32,939	$20,061	$8,470		
2.500	$10,568	$6,643	$3,253			$17,759	$11,491	$5,628			$34,673	$21,794	$10,204		
2.000	$11,323	$7,397	$4,008	$1,283		$19,065	$12,797	$6,934	$2,220		$37,150	$24,271	$12,680	$4,210	
1.500	$12,077	$8,152	$4,763	$2,038		$20,371	$14,103	$8,240	$3,526		$39,626	$26,748	$15,157	$6,687	
1.000	$12,832	$8,907	$5,518	$2,793		$21,677	$15,409	$9,546	$4,832		$42,103	$29,224	$17,634	$9,164	
0.300	$13,889	$9,964	$6,575	$3,850		$23,505	$17,237	$11,374	$6,660		$45,570	$32,692	$21,101	$12,631	
0.000	$14,342	$10,417	$7,028	$4,303	$453	$24,288	$18,020	$12,157	$7,443	$783	$47,056	$34,178	$22,587	$14,117	$1,486

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$18,582				
6.900	$20,811				
6.745	$21,964				
5.320	$32,555				
4.655	$37,498	$16,686			
4.560	$38,204	$17,392			
3.325	$47,383	$26,572	$9,179		
2.850	$50,914	$30,102	$12,710		
2.500	$53,515	$32,704	$15,311		
2.000	$57,232	$36,420	$19,028	$6,318	
1.500	$60,948	$40,136	$22,744	$10,034	
1.000	$64,664	$43,853	$26,460	$13,750	
0.300	$69,867	$49,056	$31,663	$18,953	
0.000	$72,097	$51,285	$33,893	$21,183	$2,230

Terminal Tractor: Non-Road Certified Engines Only
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$3,482				$10,799				$15,154				
4.655	$4,713	$3,870			$12,863	$6,967			$18,049	$9,776			
4.560	$4,889	$4,046			$13,158	$7,261			$18,463	$10,189			
3.325	$7,176	$6,334	$3,695		$16,990	$11,094	$6,191		$23,841	$15,567	$8,687		
2.850	$8,056	$7,213	$4,574		$18,464	$12,568	$7,665		$25,909	$17,636	$10,756		
2.500	$8,704	$7,861	$5,222		$19,550	$13,654	$8,751		$27,433	$19,160	$12,280		
2.000	$9,630	$8,787	$6,148	$2,454	$21,102	$15,206	$10,303	$4,112	$29,610	$21,337	$14,457	$5,770	
1.500	$10,556	$9,713	$7,074	$3,380	$22,653	$16,757	$11,854	$5,663	$31,788	$23,514	$16,634	$7,947	
1.000	$11,482	$10,639	$8,000	$4,306	$24,205	$18,309	$13,406	$7,215	$33,965	$25,691	$18,811	$10,124	
0.300	$12,778	$11,936	$9,297	$5,602	$26,377	$20,481	$15,578	$9,387	$37,013	$28,740	$21,859	$13,172	
0.000	$13,334	$12,491	$9,852	$6,158	$27,308	$21,412	$16,509	$10,318	$38,319	$30,046	$23,166	$14,479	$1,306

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$17,828					$28,469					$58,495				
6.745	$18,891					$30,308					$61,982				
5.320	$28,662					$47,211					$94,042				
4.655	$33,222	$15,394				$55,100	$26,631				$109,003	$50,508			
4.560	$33,874	$16,045				$56,227	$27,758				$111,141	$52,646			
3.325	$42,342	$24,514	$9,120			$70,877	$42,407	$15,777			$138,926	$80,431	$27,785		
2.850	$45,599	$27,771	$12,377			$76,511	$48,042	$21,411			$149,612	$91,117	$38,472		
2.500	$47,999	$30,171	$14,777			$80,663	$52,194	$25,563			$157,487	$98,992	$46,346		
2.000	$51,428	$33,600	$18,205	$5,828		$86,594	$58,125	$31,494	$10,083		$168,736	$110,241	$57,595	$19,123	
1.500	$54,856	$37,028	$21,634	$9,257		$92,525	$64,056	$37,425	$16,014		$179,985	$121,490	$68,844	$30,372	
1.000	$58,285	$40,457	$25,062	$12,686		$98,456	$69,987	$43,356	$21,945		$191,234	$132,739	$80,093	$41,622	
0.300	$63,085	$45,256	$29,862	$17,485		$106,760	$78,290	$51,660	$30,249		$206,983	$148,488	$95,842	$57,370	
0.000	$65,142	$47,314	$31,920	$19,543	$2,057	$110,318	$81,849	$55,218	$33,807	$3,559	$213,732	$155,237	$102,591	$64,120	$6,749

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$84,399				
6.900	$94,527				
6.745	$99,760				
5.320	$147,867				
4.655	$170,318	$75,790			
4.560	$173,525	$78,998			
3.325	$215,218	$120,691	$41,693		
2.850	$231,254	$136,727	$57,729		
2.500	$243,070	$148,543	$69,545		
2.000	$259,950	$165,422	$86,425	$28,696	
1.500	$276,829	$182,302	$103,305	$45,576	
1.000	$293,709	$199,182	$120,184	$62,455	
0.300	$317,341	$222,814	$143,816	$86,087	
0.000	$327,469	$232,942	$153,944	$96,215	$10,128

Terminal Tractor: On-Road Certified Engines Only
7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	100 - 174								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$24,000								
6.900	$26,057								
6.745	$27,120								
5.320	$36,891								
4.655	$41,451								
4.560	$42,102								
3.325	$50,571	$18,343	$11,486						
2.850	$53,828	$21,600	$14,743	$7,886					
2.500	$56,228	$24,000	$17,143	$10,286					
2.000	$59,656	$27,428	$20,571	$13,714					
1.500	$63,085	$30,857	$24,000	$17,143	$6,000	$6,000			
1.000	$66,513	$34,285	$27,428	$20,571	$9,428	$9,428	$3,429		
0.300	$71,313	$39,085	$32,228	$25,371	$14,228	$14,228	$8,228	$1,371	
0.000	$73,370	$41,142	$34,285	$27,428	$16,285	$16,285	$10,286	$3,429	$1,371

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	175-299								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$41,518								
6.900	$45,076								
6.745	$46,915								
5.320	$63,819								
4.655	$71,707								
4.560	$72,834								
3.325	$87,484	$31,731	$19,869						
2.850	$93,118	$37,366	$25,504	$13,642					
2.500	$97,270	$41,518	$29,655	$17,793					
2.000	$103,201	$47,449	$35,587	$23,724					
1.500	$109,132	$53,380	$41,518	$29,655	$10,379	$10,379			
1.000	$115,063	$59,311	$47,449	$35,587	$16,311	$16,311	$5,931		
0.300	$123,367	$67,614	$55,752	$43,890	$24,614	$24,614	$14,235	$2,372	
0.000	$126,925	$71,173	$59,311	$47,449	$28,173	$28,173	$17,793	$5,931	$2,372

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*								
	300-400								
	pre-1989	1990	1991-1997	1998-2003	2004-2006	2007+	2007+	2007+	2007+
	10.700	6.000	5.000	4.000	2.375	2.375	1.500	0.500	0.200
7.200	$61,313								
6.900	$66,568								
6.745	$69,284								
5.320	$94,247								
4.655	$105,896								
4.560	$107,560								
3.325	$129,195	$46,861	$29,343						
2.850	$137,516	$55,182	$37,664	$20,146					
2.500	$143,648	$61,313	$43,795	$26,277					
2.000	$152,407	$70,072	$52,554	$35,036					
1.500	$161,166	$78,831	$61,313	$43,795	$15,328	$15,328			
1.000	$169,925	$87,590	$70,072	$52,554	$24,087	$24,087	$8,759		
0.300	$182,187	$99,853	$82,335	$64,817	$36,350	$36,350	$21,022	$3,504	
0.000	$187,443	$105,108	$87,590	$70,072	$41,605	$41,605	$26,277	$8,759	$3,504

Non-Road Tractor-Loader-Backhoe

7-Year Activity Life

Use the Column corresponding to the Horsepower Range and Emissions Model Year of the engine being replaced

Use the Row corresponding to the Certified NO_X Emissions Standard or Family Emissions Limit (FEL) of the replacement engine (if between the numbers listed, use the higher rate).

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*												
	25 - 49				50 - 74				75 - 99				
	pre-1999	1999 - 2003	2004 - 2012	2013 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2016	pre-1998	1998 - 2003	2004 - 2007	2008 - 2012	2013 - 2016
5.320	$702				$2,176				$3,054				
4.655	$950	$780			$2,592	$1,404			$3,638	$1,970			
4.560	$985	$815			$2,652	$1,463			$3,721	$2,054			
3.325	$1,446	$1,276	$745		$3,424	$2,236	$1,248		$4,805	$3,137	$1,751		
2.850	$1,624	$1,454	$922		$3,721	$2,533	$1,545		$5,222	$3,554	$2,168		
2.500	$1,754	$1,584	$1,052		$3,940	$2,752	$1,764		$5,529	$3,861	$2,475		
2.000	$1,941	$1,771	$1,239	$495	$4,253	$3,064	$2,076	$829	$5,968	$4,300	$2,914	$1,163	
1.500	$2,127	$1,958	$1,426	$681	$4,565	$3,377	$2,389	$1,141	$6,406	$4,739	$3,352	$1,602	
1.000	$2,314	$2,144	$1,612	$868	$4,878	$3,690	$2,702	$1,454	$6,845	$5,178	$3,791	$2,040	
0.300	$2,575	$2,405	$1,874	$1,129	$5,316	$4,128	$3,140	$1,892	$7,459	$5,792	$4,405	$2,655	
0.000	$2,687	$2,517	$1,986	$1,241	$5,504	$4,315	$3,327	$2,079	$7,723	$6,055	$4,669	$2,918	$263

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*														
	100 - 174					175 - 299					300 - 599				
	pre-1997	1997 - 2002	2003 - 2006	2007 - 2011	2012 - 2016	pre-1996	1996 - 2002	2003 - 2005	2006 - 2010	2011 - 2016	pre-1996	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2016
6.900	$3,593					$5,738					$11,789				
6.745	$3,807					$6,108					$12,492				
5.320	$5,776					$9,515					$18,953				
4.655	$6,695	$3,102				$11,105	$5,367				$21,968	$10,179			
4.560	$6,827	$3,234				$11,332	$5,594				$22,399	$10,610			
3.325	$8,533	$4,940	$1,838			$14,284	$8,547	$3,180			$27,998	$16,210	$5,600		
2.850	$9,190	$5,597	$2,494			$15,420	$9,682	$4,315			$30,152	$18,363	$7,753		
2.500	$9,674	$6,081	$2,978			$16,256	$10,519	$5,152			$31,739	$19,950	$9,340		
2.000	$10,365	$6,771	$3,669	$1,175		$17,452	$11,714	$6,347	$2,032		$34,006	$22,217	$11,607	$3,854	
1.500	$11,055	$7,462	$4,360	$1,866		$18,647	$12,909	$7,542	$3,227		$36,273	$24,484	$13,875	$6,121	
1.000	$11,746	$8,153	$5,051	$2,557		$19,842	$14,105	$8,738	$4,423		$38,540	$26,752	$16,142	$8,388	
0.300	$12,714	$9,121	$6,018	$3,524		$21,516	$15,778	$10,411	$6,096		$41,714	$29,925	$19,316	$11,562	
0.000	$13,128	$9,535	$6,433	$3,939	$415	$22,233	$16,495	$11,128	$6,813	$717	$43,074	$31,286	$20,676	$12,922	$1,360

Replacement Engine Emissions Standard or FEL (g/bhp-hr)	Engine Being Replaced - *Horsepower Range* and *Emissions Model Year*				
	600 - 749				
	pre-1996	1996 - 2001	2002 - 2005	2006 - 2010	2011 - 2016
7.200	$17,009				
6.900	$19,051				
6.745	$20,105				
5.320	$29,800				
4.655	$34,325	$15,274			
4.560	$34,971	$15,921			
3.325	$43,374	$24,323	$8,403		
2.850	$46,606	$27,555	$11,634		
2.500	$48,987	$29,937	$14,016		
2.000	$52,389	$33,338	$17,418	$5,783	
1.500	$55,791	$36,740	$20,819	$9,185	
1.000	$59,193	$40,142	$24,221	$12,587	
0.300	$63,955	$44,905	$28,984	$17,350	
0.000	$65,996	$46,946	$31,025	$19,391	$2,041

APPENDIX G: WAIVER OF CERTAIN ELIGIBILITY REQUIREMENTS

1.0 PURPOSE

Under THSC, §386.104(j), the TCEQ is to consider a request to waive one or more eligibility requirements based on a finding of good cause, which may include short lapses in registration or operation due to economic conditions, seasonal work, or other circumstances.

This appendix contains the procedures a grant applicant must use to request a waiver to one or more of the eligibility requirements.

2.0 BASIS FOR A DETERMINATION OF GOOD CAUSE

As stated in the RFGA, this program is to provide grants for eligible activities to offset the incremental costs of projects to reduce emissions of NO_X from high-emitting internal combustion engines in eligible areas. The eligibility requirements are established to ensure that the grant-funded projects will achieve the NO_X emissions reductions.

In accordance with the TERP rules and Guidelines, any decision to grant a waiver must ensure that the emissions reductions attributable to the project will still be valid and that, where applicable, the project will still meet the criteria for crediting the emissions reductions to the state implementation plan.

It may be difficult for the TCEQ to determine that there is good cause to waive the core eligibility requirements, including standards for achieving a minimum level of emissions reductions, cost per ton provisions, area of use requirements, Activity Life requirements, and similar requirements. Applicants would need to establish that reductions in NO_X will still be achieved and that those reductions could still be attributed to the state implementation plan. A waiver to eligibility requirements that would result in reduced NO_X emissions reductions, higher costs for those emissions reductions, or emissions reductions in areas not identified as a priority for reducing NO_X emissions may not meet this requirement.

For other eligibility requirements, such as the ownership, registration, and use requirements for vehicles and equipment being replaced under a proposed project, it may be easier to determine good cause for a waiver. The basis for the ownership, registration, and use requirements is, in part, a way to validate that a project will result in reductions in NO_X emissions and other pollutants, when compared with what would have happened if the grant were not awarded.

In order for projections of emissions reductions attributable to a project to be valid, there must be reasonable assurance that, absent the grant, the grant applicant would have continued to use the vehicle or equipment being replaced for the same purposes and amount of use, and in the same area of use, for the period over which the emissions reductions are being considered.

A project that only replaces a vehicle or piece of equipment that has already been taken out of service or put into limited service does not meet the criteria. Similarly, without requirements on past ownership and use, there is a risk that a grant applicant could purchase an old vehicle or equipment, or otherwise transfer a vehicle or equipment from out-of-state, solely for the purpose of obtaining a grant.

The TCEQ's determination of whether there is good cause to grant a waiver will be based on an evaluation of the factors explained above. Grant applicants are required in a request for a waiver to explain how there is good cause to grant a waiver and justification for determining that, with the waiver, the emissions reductions attributable to the project will still be valid and that, where applicable, the project will still meet the criteria for crediting the emissions reductions to the state implementation plan.

3.0 STANDARD SITUATIONS

All waiver requests will be considered on a case-by-case basis with no assurance that a waiver will be granted. However, there are several standard situations where a determination of good cause may be easier to make. Some of these situations for a replacement project are outlined below:

a) The two-year ownership or lease (for vehicles) requirement might be waived when the ownership of the company applying for a grant has changed, the assets of the company have been purchased by another company, or the company has changed names or incorporation status. In any case, the vehicle or equipment should have been owned or the vehicle leased under either the current company name or the previous company name and registered and operated in Texas for the preceding two years.

b) Regardless of the past ownership or lease, the grant applicant must currently have authority to destroy a vehicle or equipment being replaced. For vehicles, this normally will require that the grant applicant be listed as the owner on the current title.

c) For uses other than seasonal use, short lapses in vehicle registration and/or use of two months or less over a one year period might constitute good cause as long as the ownership or lease holder of the vehicle did not change. The reasons provided in the waiver request for the lapse in registration and/or use should clearly show that the vehicle would continue to be used by the grant applicant and that the lapse in registration or use was not a permanent situation.

d) For vehicles used in seasonal work, good cause might be considered for lapses in registration and/or use during the non-seasonal period. Under this situation, lapses in registration or use for longer than six months over a one year period would be more difficult to justify. An explanation of the type of use and the normal season(s) for that use will need to be provided.

Other situations, including longer lapses in ownership, registration, or use, may also be considered, case-by-case. The burden is on the grant applicant to fully explain why a waiver should be granted and to justify that there is a good cause to grant the waiver request.

4.0 WAIVER REQUEST INSTRUCTIONS

Requests for a waiver must be submitted in writing, with an original signature of the authorizing official of the grant applicant.

Grant applicants should follow the example format provided in Attachment 1 to this appendix to prepare the written waiver request(s). As shown on the example format, the request should include a cover letter signed by the authorizing official and attesting to the accuracy of the information provided. Required waiver information should be completed and enclosed with the cover letter.

Waiver requests must be submitted before the application begins the review process. Waiver requests not submitted with an application should be sent to:

Regular Mail:
Texas Commission on Environmental Quality
Air Quality Division
Implementation Grants Section (REBATE), MC-204
P.O. Box 13087
Austin, TX 78711-3087

Express Mail:
Texas Commission on Environmental Quality
Air Quality Planning Division
Implementation Grants Section (REBATE), MC-204
12100 Park 35 Circle
Austin, TX 78753

4.1 WAIVER REQUEST APPROVAL/DISAPPROVAL PROCEDURES

a) **Waiver Requests Submitted Prior to Submission of an Application**

i) The TCEQ will review waiver requests submitted before an application in the order the request is received.

ii) Notification may be provided by electronic mail, letter, or fax, or a combination of one or more methods. Where feasible, preliminary notification may also be provided by a phone call to the grant applicant's representative.

iii) If the waiver request is approved, grant applicants should reference the waiver approval where noted in the application and include a copy of the notification documents with the application forms.

b) Waiver Requests Submitted with an Application

i) Waiver requests submitted with an application will be considered along with the application.

c) Incorporation of Approvals into the Contract Conditions

i) If a waiver request is approved, the conditions under which the waivers were granted may be included in the grant contract and agreement documents.

ii) By signing the contract, the grant applicant will be attesting to the validity of the conditions under which the waiver was granted.

d) Waiver Disapproval Appeal Procedures

i) A grant applicant that is not satisfied with a decision of the TCEQ to disapprove a waiver request either submitted prior to submission of an application or with the application, may file an appeal of that decision with the TCEQ.

ii) An appeal must be submitted by mail, fax, or scanned document through electronic mail, to the Manager of the Implementation Grants Section, Air Quality Division, of the TCEQ within ten calendar days after the grant applicant received, or should have received, official notification by the TCEQ that a waiver request was denied. If denial is sent by mail, the grant applicant is deemed to have received the denial within three business days after the mailing date. If denial is sent electronically, the grant applicant is deemed to have received the denial on the date sent.

iii) The TCEQ has the discretion to allow an appeal filed after ten calendar days if the protestant shows good cause for the late filing or if the protestant raises an issue significant to the general policies or procedures of the waiver request process.

iv) An appeal must be in writing and identified as an appeal of the TCEQ's decision on the specific waiver request in question, and must contain:

v) a description to verify that the protestant is the grant applicant that submitted the waiver request;

vi) the issue(s) being disputed and the requested remedy;

vii) the applicant's argument supporting the appeal, including a statement of relevant facts and applicable law or requirement, specifying the statutes, rules, grant requirements or other legal authority alleged to not have been followed and why good cause should be determined to grant the waiver request; and

viii) the applicant's affirmation that facts set forth in the appeal are true.

ix) An application that does not otherwise meet the conditions and requirements for approval of a grant, regardless of the decision on a waiver request, will not be reconsidered just because an appeal is received regarding the waiver request decision.

x) The Executive Director of the TCEQ or an authorized designee will review the appeal and make a decision. The Executive Director or designee may solicit additional information from the protestant and other appropriate parties and may offer the protestant the opportunity to meet to discuss the waiver request and appeal.

xi) The decision of the Executive Director or authorized designee on the appeal and the waiver request, as communicated in writing or other appropriate means, shall be final.

Attachment 1 to Appendix G

1) Format for Waiver Requests

a) Cover Letter:

i) Legal Name of Grant Applicant

ii) Project Representative Name

iii) Address

iv) Contact E-Mail

v) Contact Phone Number

vi) Vehicle/Equipment Information

Vehicle or Equipment Information:

vii) Vehicle Identification Number (VIN) or Equipment Serial Number

viii) Make/Model/Year (as applicable)

List the requirement(s) for which the waiver(s) is/are requested.

(1) For each requirement, explain in detail how the project does not meet the requirement(s) and why.

(2) Provide a detailed explanation of why there is good cause to grant the waiver. Refer to the instructions for examples of situations where good cause may be determined.

(3) For vehicles used in seasonal work, provide a detailed explanation of the type of work performed, the normal season for use of the vehicle, and why the vehicle is only registered and used over that seasonal period.

As explained in the instructions, the justification provided for granting the waiver must clearly demonstrate that the emissions reductions attributable to the project will still be valid and that, where applicable, the project will still meet the criteria for crediting the emissions reductions to the state implementation plan.

ix) Documentation

(1) Attach documentation to support the waiver request, such as title documents, lease and sales agreements, registration receipts, ownership agreements, etc.

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APPENDIX H: INSTRUCTIONS FOR FILLING OUT REQUIRED FORMS

1.0 APPLICATION COMPLETION AND SUBMISSION

Use the TCEQ-20332 application form and the appropriate Supplemental Activity Form (i.e., 20332a – 20332b) when submitting a Rebate application. The application forms can be found on the TERP website at <www.terpgrants.org>. Before completing the application forms, you should read this RFGA and the Terms and Conditions of the contract (example available online). The Authorized Official must sign the application forms, and the forms must contain original signatures.

We believe this to be a taxable grant. Please consult with your tax advisor.

1.1 HOW TO APPLY

a) Application forms that are altered will not be accepted. DO NOT staple or put the application into binders. Please rubber band or paperclip applications.

b) If applying as an individual or sole ownership, you must provide a photocopy of a state or federal identification card (i.e., driver's license).

c) Grant applicants must complete the W-9 Forms and submit with the application. Forms can be downloaded on the Internal Revenue Service (IRS) website at <www.irs.gov>.

d) Photocopies, faxes, scanned copies, or other copies of forms with required original signature will not be accepted.

e) Attach all required attachments. Depending on the project type, attachments may include: detailed quotes/bids, color photographs of the vehicle/equipment to be replaced, proof of registration and current safety inspection, and a copy of the vehicle title.

f) Applications will not be accepted for an activity that was previously awarded a TERP grant and that was subsequently canceled by the grant recipient after the date of issuance of this RFGA.

1.2 HOW TO SUBMIT AN APPLICATION

Submit a separate application form for each vehicle/equipment to be funded. A maximum of 10 activities per entity can be submitted during this grant period.

Submit two (2) copies (at least one copy must have original signatures) of the completed application to:

Regular Mail:
Texas Commission on Environmental Quality Air Quality Division
Implementation Grants Section (REBATE), MC-204
P.O. Box 13087
Austin, TX 78711-3087

Express Mail:
Texas Commission on Environmental Quality
Air Quality Division
Implementation Grants Section (REBATE), MC-204
12100 Park 35 Circle
Austin, TX 78753

Excel Instructions:

Each of the forms is on an individual Excel worksheet within a workbook. Use the tabs located at the bottom of the workbook to access each form.

Printing from Excel:

In order to print all the pages located in the workbook, please follow these directions: (1) Click on "File" (2) Click on "Print" (3) Select "Entire Workbook".

Application Processing:

Applications are processed on a first-come, first-served basis. Applications that are not complete or contain errors will be returned to the applicant with a letter of explanation.

Submission of an application does not guarantee grant funding.

1.3 HOW TO COMPLETE AN APPLICATION

TCEQ FORM 20332 – PROJECT APPLICATION FORM

Form 1 – Signature Page

Section 1 – Applicant/Company Legal Name
The legal name of the grant applicant (business entity or person) should match the name on Form 6: Payee Information.

Section 2 – Primary Areas for the Project
Check the primary area where the vehicle/equipment will be operating for the life of the project. Only one area should be checked.

Section 3 – Authorized Official
The Authorized Official is the applicant or an employee of the applicant authorized to apply for the grant.

This section must be completed and signed by the Authorized Official.

Form 2 – Third-Party Preparer Signature Page

Indicate on this form whether the application has been prepared with the assistance of a third party, including a consultant, dealer, or other person not employed by the applicant. Mark the appropriate box with an "X". If YES, the third-party preparer must complete and sign this form.

Form 3 – Activity Information

Section 1 – Activity Type
Select which Supplemental Activity Application Form will be included with the application. Replacement Activities will use Supplemental Form 20332a and Repower Activities will use Supplemental Form 20332b.

Section 2 – Emission Source
Mark the appropriate box with an "X" for your project. Only one source may be selected.

Section 3 – Activity Life
Mark the appropriate box with an "X" for your project. The Activity Life is the minimum number of years you will be required to operate the Vehicle or equipment and is used to determine the emissions reductions and cost effectiveness of the activity.

Section 4 - Waiver of Eligibility Requirements
If you submitted a request to waive eligibility requirements prior to submitting the application and received a waiver control number from the TCEQ, check YES and provide the control number in the space provided. If you did not, check NO.

If you are submitting a request to waive eligibility requirements with the application, check YES and attach a written waiver request according to the instructions in Appendix G of this RFGA. If you are not submitting a request to waive eligibility requirements, check NO.

Section 5 – Other Grant Applications
If the vehicle/equipment you are applying to replace has already been submitted in a previous application to the TCEQ, check YES and provide a brief description of the program and date of application. If not, check NO.

Section 6 – Has the purchase or repower already been completed?
If you have already acquired or repowered the replacement vehicle/equipment, check YES and provide the date of acquisition otherwise check NO.

Section 7 – Is the Applicant a Small Business?
If you meet the definition of a small business as defined in Section 1.4(f) of this RFGA, then check YES otherwise check NO.

Form 4 – Contact Information

Section 1 – Authorized Official
Provide the name, title, and address of the Authorized Official. The Authorized Official is the applicant or person authorized by the applicant to apply for this grant. Include both mailing address and physical address.

Section 2 – Designated Project Representative
Provide the name and address of the Designated Project Representative. The designated project representative is the applicant or an employee of the applicant who will serve as the grant contact and will be responsible for receiving and submitting grant documents, including semi-annual usage reports. This person may not be a consultant, dealer, or subcontractor.

If the Authorized Official and the Designated Project Representative of the grant applicant is the same person, you do not have to repeat the information and instead you can mark an "X" in the designated box.

Section 3 – Location for Records Access
Provide the physical address where the records for the vehicle/equipment will be kept.

Form 5 – General Certifications (2 pages)

The applicant must read this form in its entirety. By signing the application, the applicant confirms that it understands and agrees to the statements. The supplemental forms must be returned with the Project Application.

Form 6 – Payee Information

Provide all information that applies to the applicant/company. The name that appears on Line 1, Applicant/Company Legal Name, will be used for contracting purposes and should match the name established with Secretary of State's Office registration records.

Section 1 – Applicant/Company Legal Name
Enter the name as registered with the United States Social Security Administration if applying as an individual or the name as it is registered under the applicant's Federal Employer's Identification (FEI) Number if applying as a company or other entity.

The name that appears in Section 1 will be used for contracting purposes as the legal name for that contract.

Section 2 – Payee Identification Number (PIN)
Enter the applicant's Social Security Number (SSN), if applying as an individual or sole proprietor, or enter the Federal Employer's Identification (FEI) Number if applying as a company or other entity. Only provide one required number.

Section 3 – Texas Taxpayer Number
Mark the box with an "X" if you currently report any Texas tax to the Comptroller's Office other than unemployment. Enter the assigned Texas taxpayer number.

Section 4 – Ownership Codes
Mark the appropriate box with an "X" for the ownership type that applies to this application. Include any specific information for that ownership type, if indicated. Only mark one ownership code.

Section 5 – Business Type
Provide the applicant's primary type of business in the designated space provided (i.e., gravel hauling, delivery, excavation, school, etc.)

Form 7 – Certification of Eligibility

All applicants must complete this form regardless of whether child support obligations apply to the grant applicant. Mark the appropriate box with an "X" that applies to the grant applicant. If the first box is checked, you must fill in all individuals' names and Social Security numbers that own 25% or more of the business. This form must be signed by the Authorized Official.

Form 8– Federal W-9 Information

A signed copy of the IRS Form W-9 (Request for Taxpayer Number and Certification) is required with all applications. Use the link or visit the IRS website to obtain the latest form.

TCEQ FORM 20332A − REPLACEMENT OF HEAVY-DUTY VEHICLES AND EQUIPMENT
If applying to replace a heavy-duty vehicle or piece of equipment you must complete and submit this form with the Project Application Form (TCEQ - 20332).

Form 1 – Vehicle/Equipment Information

Fill out each box with the appropriate information. Column 1 is for the New Vehicle or Equipment information and Column 2 is for the Vehicle or Equipment that is being replaced.

For projects involving **terminal tractors**, please indicate in the Vehicle/ Equipment Description field whether the equipment's engine is certified to an ***on-road*** **or** ***non-road*** **heavy duty emissions standard**.

Form 2 – Vehicle/Equipment Cost Data

The Excel version of this form has formulas built in that will perform calculations as you enter the data. Provide all the financial data for the activity.

Section 1 – Requested Rebate Grant Amount
In the Excel version, this field will automatically be populated once required information is filled in. The grant amount should be the LESSER of the Eligible Costs (F) or the table grant amount (G).

Section 2 – Incremental Cost/Cost to the Applicant Calculation

- Capital Cost – Vehicle/Equipment Purchase (A): Refer to the price quote or the invoice of the replacement vehicle/equipment to obtain the capital cost of the activity.
- Global Positioning System (B): Applicants who install a GPS system may include the cost of the GPS unit and installation as part of the incremental cost calculation. Refer to Appendix I to obtain the latest price and contact information for the TCEQ approved GPS vendor.
- Scrappage Value (C): The default scrap value is $1,000.00 for heavy-duty vehicles or equipment replacement projects.
- Other Financial Incentives and Tax Credits (D): Enter the total amount of any other incentives or credits that will apply to the purchase of the vehicle/equipment.
- Incremental Cost/Cost to Applicant (E): (A+B-C-D=E): The Capital Cost plus the GPS cost (if applicable), minus the scrap value, minus other financial incentives (if applicable) equals the Incremental Cost. This field will be automatically calculated if you are using the Excel version.

Section 3 – Grant Amount Calculation

- Incremental Cost/Cost to Applicant (E): Enter the Incremental Cost amount that was calculated in Section 1, (E). This field will be pre-populated if you are using the Excel version.
- Eligible Costs (F): Multiply Incremental Cost (E) by 0.8: (E X 0.8 = F). This field will be automatically calculated if you are using the Excel version.
- Rebate Table Amount (G): Enter the eligible Rebate Table Amount in this field.
- The lesser of Eligible Costs (F) or Rebate Table Amount (G) will be automatically determined if you are using the Excel Grant version of this form: This amount will populate in Section 1 of this form.

Section 4 – Other Financial Incentives and Tax Credits:

Provide an explanation in the box provided the source of other financial incentives or tax credits for the purchase or lease of this vehicle that was reported in Section 1 of this form. This assistance does not include the amount you finance through a bank or other third-party to purchase the equipment.

Section 5 – Financing or Lease Terms for Replacement Vehicles
Mark the appropriate box with an "X" of the payment option for the replacement vehicle/equipment.

Explain the financing or lease terms in the space provided including the length (months) of the financing or lease agreement.

Form 3 – Price Analysis for Vehicle/Equipment Being Purchased (read this form carefully)

The applicant is required to submit the original price quote, invoice, or purchase order for the replacement vehicle/equipment listed in the application. In addition, the applicant must provide the price comparison information from one of the options on this form. The price quote must be made out to the applicant and signed and dated by the salesman. Governmental entities must follow competitive purchasing laws applicable to that entity in making a grant-funded purchase. Further price-quote guidance can be found in Appendix I.

Section 1 – No Price Comparison Information.
If Option A or Option B is selected, no price comparison is required. In order to choose option A, the applicant must be a governmental entity. In order to choose option B, the requested grant amount may not exceed 60% of the vehicle or equipment cost.

Section 2 – Price Comparison Information.
If applicant is not eligible to choose Option A or B, then the applicant must choose one of the options in C through G. Select the appropriate option that applies to your application. Option G will only be accepted in unusual or special circumstances, such as with a unique type of vehicle or equipment. For that option, provide an explanation as to why no price comparison information is available along with a justification for why the price should be considered in the available space provided.

Section 3 – Reasonableness of the price quote.
If the price on the primary price quote is higher than the price comparison information provided, you must provide an explanation of why the price should be considered reasonable.

Form 4 – Percentage of Annual Usage

Enter the percent of annual use the vehicle or equipment will be used in the eligible areas that apply to the activity. The total annual usage may not be less than 75% in the eligible areas. Provide a brief travel description of the typical routes or job sites for the grant-funded vehicle/equipment that applies to the activity on the application.

Form 5 – Disposition of the Old Vehicle/Equipment Being Replaced

Section 1 − Are you proposing an alternative method of destruction other than the listed method in the RFGA? Mark the appropriate box with an "X".

Section 2 − Does the alternative method of destruction apply to all the activities listed in the application? Mark the appropriate box with an "X".

If NO, enter all the activity numbers which the alternative method applies to in the box provided.

Explain the alternative method of destruction for those activities in the box provided.

Form 6 – Vehicle or Equipment Certification.

This form must be completed and signed by a certified or licensed mechanic qualified to assess the condition of the old vehicle. The certified mechanic may not be a consultant or employee of the applicant, unless otherwise approved by the TCEQ.

Enter the Vehicle or Equipment Identification Number for the activity listed in the application. The vehicle or equipment identification number should match the number listed on Form 2.

Form 7 – Applicant Certification of Ownership or Lease, Condition, and Historical Use (read this form carefully)

A separate Supplemental Activity Application Form must be completed for each activity in the application. By signing this form you are certifying the conditions are met, unless a waiver is requested.

Section 1 – Ownership or Lease

Provide the purchase or lease date of the vehicle/equipment being replaced (if applicable) in the box provided.

Provide the previous owner or leasing company of the vehicle/equipment being replaced (if applicable) in the box provided.

Section 2 – Registration (On-Road)

Enter the current license plate number of the vehicle. Enter the registration expiration date in the box provided.

Section 3 – Operation in Texas

The vehicle or equipment has been continuously located and used in Texas for the preceding two years.

The vehicle has continuously had an up to date safety inspection over the preceding two years and has a current valid safety inspection, if required.

Section 4 – Condition

The vehicle or equipment is currently in good operating condition and capable of performing its primary function at the time of signature.

To the best of the applicant's knowledge, the vehicle or equipment is capable of continuing to perform its primary function for at least the period of the designated Activity Life, taking into account normal maintenance, repairs, and upkeep.

Section 5 – Continued Operation and Use

If the grant funds were not available, the applicant expects to otherwise continue to operate the vehicle or equipment in Texas for at least the period of the designated Activity Life and the applicant otherwise would not have planned to replace the vehicle or equipment.

If the vehicle is currently leased, the lease agreement extends through the period of the designated Activity Life or the lease includes a binding commitment to purchase.

Section 6 – Requesting a Waiver for Ownership, Registration, Use, or Condition requirements.

(Refer to the Appendix G of this RFGA for waiver eligibility requirements)

If you are requesting a waiver for ownership, registration, use, or condition, mark the appropriate boxes with an "X" that apply to this activity.

Section 7 – Historical Use

Enter the historical usage either in miles, fuel use, or hours for each activity on the application.

Enter the odometer reading of the vehicle/equipment being replaced in the space provided.

Indicate YES or NO whether the odometer is working or not in the space provided.

Checklist

Review this form to ensure that all appropriate forms are signed and all additional documents are included in the application packet.

The following documentation, if applicable, is required in order to request a grant for replacement.

- TCEQ Form 20332
- TCEQ Form 20332(a)
- A copy of the current title or lease agreements (on-road vehicle leases only) listing the applicant as the owner or lessee. If not two years old, copies of the previous title or lease documents.
- A copy of the current vehicle registration document or receipt if registration is required for the equipment being replaced. If registration was renewed within the last six months, attach copies of the previous registration documentation to show continuous registration for two years (On-Road only).
- Annual usage summaries showing mileage driven in each registered state for the preceding two years (vehicles with apportioned registrations only).
- For on road vehicles, three color photographs showing (1) the entire vehicle including the tires, (2) the engine, including the engine emissions label, and (3) the vehicle registration. For non-road equipment, two color photographs showing (1) the entire equipment including the tires or tracks, and (2) the engine including the engine emissions label if possible.
- A detailed original price quote plus other quotes according to the price comparison option chosen, if the vehicle or equipment has not been purchased. If the purchase has been completed, provide an original purchase, lease, or financing agreement and/or invoice showing the price paid. The purchase may not have been made before the opening of the grant application period.
- A signed W-9 (request for taxpayer identification number and certification form).
- Waiver Request (if applicable).
- Pup-Trailer registration (if the pup-trailer is attached 100% of the time).
- A photocopy of a state or federal issued identification card (if the applicant is an individual or sole ownership).

TCEQ FORM 20332B − REPOWER OF HEAVY-DUTY VEHICLES AND EQUIPMENT

If applying to repower heavy-duty vehicles or equipment you must complete and submit this form with the Project Application Form (TCEQ -20332). This category is to replace an existing engine with a new, rebuilt, or remanufactured engine.

The Excel version of this form has formulas built-in that will perform calculations as you enter the data. Provide all the financial data for the vehicle/equipment. All cost estimates, quotes, and bids as well as the final invoices, should be itemized, at least to the level of detail listed below:

Form 1 – Vehicle/Equipment Information

Fill out each box with the appropriate information.

Form 2 – Vehicle/Equipment Cost Data

Section 1 – Requested Rebate Grant Amount
For the excel version, this field will automatically be populated once required information is filled and is the LESSER of the Eligible Costs (E) or the table grant amount (F).

Section 2 – Incremental Cost / Cost to Applicant Calculation

- Capital Cost – Engine (A1). Enter the price quote or the invoice of the new engine including taxes, duty, protective in-transit insurance, and freight charges.
- Capital Cost – Additional Equipment (A2). Enter the amount of additional equipment with a per unit acquisition cost of $5,000 or more and that is necessary for the completion of the repower.
- Capital Cost – Installation (A3). Enter the amount for installation including the cost to remove and dispose of the old engine, if needed. Installation costs may include costs to re-engineer the vehicle for the new engine to fit. Technical design, testing and other engineering services required as part of the installation work should also be listed under this subcategory.
- Capital Cost – Supplies (A4). Enter the invoice cost of equipment and materials not included as part of the engine with an acquisition cost of less than $5,000 that are necessary for the repower. Attach itemized quote/bid.
- Incremental Cost (A) is the subtotal of A1+A2+A3+A4
- Global Positioning System (B): Applicants who install a GPS system may include the cost of the GPS unit and installation as part of the incremental cost calculation.
- Scrappage Value (C): Enter the default scrap value of $200 for the old engine for heavy duty vehicle/equipment repower projects.
- Other Financial Incentives and Tax Credits (D): Enter the total amount of any other incentives or credits that will apply to the purchase of this vehicle/equipment.
- Incremental Cost/Cost to Applicant (E). (A+B-C-D=E) The Capital Cost plus the GPS cost (if applicable), minus the scrap value, minus other financial incentives (if applicable) equals the Incremental Cost. This field will be automatically calculated if you are using the Excel version.

Section 3 –Grant Amount Calculation
Eligible Cost (E): Multiply the Incremental Cost amount that was calculated in Section 2 times Eighty percent. This field will be pre-populated if you are using the Excel version.

Rebate Grant Amount from Table (F): Enter in the amount from the appropriate rebate Table.

Section 4 – Other Financial Incentives and Tax Credits:
Provide an explanation in the box provided of the source of other financial incentives or tax credits to be used for the purchase or lease of this vehicle that was reported in Section 1 of this form. This assistance does not include the amount you finance through a bank or other third party to purchase the equipment.

Section 5 – Certification of Ownership
By signing the application signature page, the applicant certifies that the applicant is the current owner of the vehicle or equipment being repowered.

Form 3 – Percentage of Annual Usage

Enter the percent of annual use that the vehicle or equipment will be used in the eligible areas that apply to the activity. The total annual usage may not be less than 75% in the eligible areas. Provide a brief travel description of the typical routes or job sites for the grant-funded vehicle/equipment that applies to the activity.

Form 4 – Disposition of the Old Engine Being Replaced

Replacement vehicle/equipment engine must be scrapped (destroyed). Provide information regarding the scrappage and, if known, identify the name, address, and phone number of the company that will scrap the engine or equipment.

Checklist–
Review this form to ensure that all appropriate forms are signed and all additional documents are included in the application packet.

The following documentation, if applicable, is required in order to request a grant for repower.

- Application Form TCEQ-20332.
- Application Form TCEQ-20332(b).
- If the replacement engine has not been purchased yet, submit one (1) written bid/quote for the purchase. If the final quote has not been obtained, provide any preliminary quotes or other information to verify the estimated cost of the replacement engine.
- If the repower has been completed, provide the invoice showing the price paid and itemized expense.
- A copy of the applicant's current vehicle registration renewal receipts to verify the registration information, ownership, and vehicle weight category (On-Road only).
- Signed W-9 (request for taxpayer identification number and certification form).
- Waiver Request (if applicable).
- A photocopy of a state or federal issued identification card (if the applicant is an individual or sole ownership).

APPENDIX I: PRICE QUOTE GUIDELINES

The cost information listed for the new vehicle/equipment must match the price quotes. Price quotes must be original and must have the applicant's name on the quote.

The dealer must sign and date the quote and provide contact information. Price quotes must be dated no more than three months prior to the application date.

The price quote must include specifications and prices for the standard vehicle or equipment options and additional equipment and options, to include as applicable:

a) Specifications of the vehicle or equipment;

b) Base price for standard feature vehicle or equipment;

c) Itemized list and prices for factory-installed optional features;

d) Itemized listing and pricing of add-on equipment to be sold and installed by the dealer (i.e., dump bed, wet kit, etc.);

e) Additional fees and charges; and

f) Taxes.

The TCEQ may use published national pricing/value guides and comparison with prices charged for other grants to determine the reasonableness of the price quote.

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APPENDIX J: GROSS VEHICLE WEIGHT RATING (GVWR) INSTRUCTIONS

Gross Vehicle Weight Rating (GVWR). The weight listed for the vehicle may not exceed the maximum weight allowed by the Texas Department of Transportation (TxDOT), as listed on the Permissible Weight Table. In general, the maximum weight listed for the vehicle may not exceed 20,000 pounds (lbs.) per axle.

The gross combined weight rating (GCWR) of the vehicle and trailer may be used for haul trucks or similar trucks that permanently operate in combination with a trailer and dump trucks that permanently pull a pup trailer. Equipment trailers pulled by a dump truck are not considered pup trailers. Check with the TCEQ if you are not sure whether your vehicle and trailer combination meet these conditions.

The TCEQ may, at its discretion, accept a weight over 20,000 lbs. per axle for vehicles operating under an annual over the weight tolerance permit or other annual specialty permit issued by TxDOT for certain uses. **You must provide a copy of the annual permit and/or other documentation of permanent operation in the higher weight category.** Registration of the vehicle at a higher weight and/or a temporary overweight permit will not be sufficient documentation that the vehicle is permanently operated at the higher weight.

Proof of the registered GVWR is required with the grant application. If a pup-trailer is used 100% of the time, the registration for both the dump truck and pup trailer must be attached.

Examples

Greater than 60,000 pounds GVWR; Tractor-Trailer Combination Haul Truck Only

Haul Truck (tractor trailer combinations and end-dump trucks)

Greater than 60,000 pounds GVWR; Other than Haul Trucks

Dump Truck with Pup Trailer (Must pull pup trailer 100% of the time. Attach pup trailer registration.)

Multi-Axle Dump Truck (4 or more axles and registered for over 60,000 lbs.)

Cement Mixer Truck

33,001 – 60,000 pounds GVWR

Dump Truck (regular tandem axle)

Cement Mixer Truck

Vacuum Truck

Water Truck

Drill Rig Truck

Tow Truck

8,501 – 33,000 pounds GVWR

Delivery Trucks